A Clinical Lecture
ON
MITRAL STENOSIS.

Delivered at the London Hospital,

BY THE LATE SIR ANDREW CLARK, BART., M.D. ABERD., F.R.S.

IN view of the recent removal from amongst us of one of the leading clinical teachers of London, we have thought it would be of interest to publish the following report of one of Sir Andrew Clark's cliniques. It formed one of the series of demonstrations which, as consulting physician to the London Hospital, he gave there two years ago. We have published previous lectures given in this course on other subjects which had the advantage of the lamented physician's personal revision; but that, alas, can no longer be obtained. On the occasion when this lecture was delivered the patient—a young man, pale and thin—was seated on a chair in the new clinical theatre, then opened by Sir Andrew Clark. In reply to the question, "What do you feel wrong with you"? the patient replied: "I am troubled with shortness of breath, a feeling of exhaustion, a feeling of oppression at the pit of the stomach, a sickish feeling, and have no appetite."

Sir Andrew Clark, in the course of his examination, made the following observations: He has five important symptoms. Look at him. There is not much to be said about his appearance. He is a spare man, and I fancy he is a little yellow. It is rather important to notice that. He complains of shortness of breath and he says that he has heart disease. We will go to his heart first. I shall look at the region of the heart in order to see if there is anything wrong there. I shall want to see that the heart is beating in the right place and if the impulse which the heart makes in beating is of the right sort. I have already told you, but I cannot tell you too often, though you may get tired of my telling you, that the first thing you ought always to do when examining a chest is to see where the heart beats, because that will almost more than anything else enable you to frame an accurate diagnosis. I find that in this case the heart is beating a little outside of its usual place and that the area of impulse is larger than is usual. The heart is beating irregularly; sometimes it stops, and then it goes on again. Now, I have learned a good deal about this case already. It is something to see the heart to the left of its usual position. It may be that the heart itself is big, or it may be that something is pushing it on one side. I notice that the heart is larger than usual because the area of impulse is larger than usual, and also because the general præcordium, the region in front of the heart, has conveyed the movement of a larger heart than usual.

Now I will *feel* the heart. I may discover something by doing that. In placing my hand upon the heart I am expecting to feel the "lub-dub" which indicates the normal action of the heart. I do not feel that in this case, but I feel a thrill—a peculiar thrill; what that may mean I do not yet know.

Now I will examine the area of cardiac dulness and see whether it is extended or diminished. Sometimes the area of cardiac dulness is very much increased—sometimes very much diminished. It may be increased by enlargement of the heart or by pericardial effusion or diminished by emphysematous lung encroaching in front of the heart. There is the upper limit—that is, the upper surface of the third rib—and it merges below into the dulness of the liver. It goes outwards about one inch or more beyond the nipple. It is apparently three and a half, nearly four, inches in depth from the upper line to the base and about three and a half inches across. Therefore this superficial examination shows us that the cardiac dulness is greatly increased.

I will now listen to the heart, and I first place my stethoscope over the mitral area in order to hear the sound of the mitral valve. When I listen over the mitral area I expect to hear—first sound, second sound, pause. But in this case confusion meets my ear; there is no distinct succession of sounds. I do manage to catch occasionally the first sound, and occasionally the second sound, but they are confused, and through them I hear a murmur the exact time of which I am not quite sure of. I will therefore listen again. On a more critical examination I hear two first sounds. The heart is what we call reduplicated—some say the ventricles are not acting synchronously. Secondly, I catch a slight murmur with the second sound; and thirdly, during or before the first sound, I hear a rough, roaring murmur just antecedent to the contraction of the ventricles and accompanying the contraction of the auricles.

Now I will go to the aortic area in order to hear the second sound of the heart. What I expect to hear at this point in health is the sharp second sound. I do not hear it. Instead of it I hear a short, obscure sound accompanied by a murmur, systolic in time; and on listening very closely I can hear doubtfully another murmur, diastolic in time. I have learned a good deal about the heart now. I know that the mitral valve is in some way imperfect and that the aortic valve is in some way imperfect also.

Now I want to look about and get fresh information as to the state of the heart from the neighbouring parts. I look at the vessels of the neck. I learn nothing from them. I might have seen these vessels very much distended, and I would then know that the circulation was not getting through the lung. I might have seen regurgitation through the vessels of the neck and then I would learn that there was some reflux of blood into them. On examining the pulse I feel that it is very small, very weak and irregular—there is no tension, as it is called, no strength in it. Now I have got pretty nearly all the facts that I want. I know that the heart is enlarged, the mitral and aortic valves are imperfect; and I know that something has prevented the passage outwards of blood to the arteries. The volume of blood is very small, there is something somehow or other preventing the free passage of the blood into the arteries. What can it be?

I must endeavour to see whether anything can be found in the lungs that will explain the condition of the heart. He tells us he has got dyspnœa and a bad cough. There is slight dulness of both bases; harsh breathing, with occasional crepitation on his taking a deep breath. Now leaving the heart and lungs for a moment let us see what is the state of the system in the presence of this disease. Then we will return to the heart, and try to see if by our diagnosis we can tell what is the matter with this patient and unfold its relations with the other systems.

Having examined the digestive track, the state of the urine, and the condition of the nervous system, Sir Andrew Clark continued: Thus you see we have been able to make out in this rough clinical way—but yet sufficiently accurately for our purpose—that, except what is connected with his heart and his lungs, there is nothing else wrong; and the first thing we have got to ask is, What is the matter with his heart? The first thing is that it is enlarged and dilated. We know that by the extension of the cardiac area and by the extension of the area of impulse. Secondly, the mitral valve is imperfect. How imperfect? We know that for two reasons—because there is a murmur in the mitral area, and that murmur is not accompanying and consequent upon the first sound and is of a roaring character. What is it? It is one of two things certainly: either mitral regurgitation or mitral stenosis. It is not mitral regurgitation, because the murmur is not of the kind or in the time which accompanies a murmur of regurgitation. A mitral regurgitation murmur occurs during, or just immediately after, the first sound. It is not of that kind. The regurgitant murmur is a sighing murmur; this is a roaring murmur. Is it really, then, mitral stenosis which, as you may know, is a disease very uncommon in men? When I listen to the heart I have constantly in my mind what is going on in the heart at the time that I am listening, and if I omit that I am always in peril of overlooking something or of making a mistake. I put my ear to the chest and I hear the first sound, and I recall to my mind what is occurring during the first sound—the contraction of the ventricles, the closure of the auriculo-ventricular valves, the rushing of the blood through the pulmonary orifice and the aorta, the entrance of blood through the pulmonary veins into the auricles—these are the main things that are occurring, and it is necessary for me to have them in my mind at the time. If I do not, and if there is anything new, I shall not know how to explain it.

Secondly, we hear the second sound, and I ask myself, What is occurring all through the heart at the time of this second sound? Well, there is the flapping back of the aortic

and pulmonary valves, the relaxing of the ventricles, the opening of the auriculo-ventricular valves, the filling of the ventricles with blood. I have all these things in my mind when I am listening to the second sound of the heart.

And, lastly, there comes the pause which follows the second sound; then the auricles are filling more and more, and the ventricles are relaxing and taking in more and more blood. Suddenly, at the end of the pause, the auricles contract and force the blood into the ventricles.

These are the things that occur during the first and second sound and the pause, and these are the things that you must have constantly in mind when you are listening to the heart. Now I listen here, and just before the first sound we hear a roaring murmur. What would happen if there was any impediment at the mitral orifice, any fusion of the valve-segments, offering an obstruction to the blood-flow? The auricles would produce a noise just at this very time, just before the contraction of the ventricles. So, I suspect, hearing the murmur just before the contraction, that there is some sort of contraction of the mitral orifice, which, having the blood forced through it by the contracting of the auricles, produces a presystolic murmur, as it is called. But that is not all. Listening very carefully to the heart, we hear, in addition to this roaring sound, another sound of an acute character, and it is just after this sound. I suspect that that is, and indeed must be, a little mitral regurgitation. There is nothing else it can be at the time. If I hear a sound of that character coincident with the contraction of the ventricles it must be mitral regurgitation. I make out here that there is a mitral stenosis and mitral regurgitation. How can I be sure of that? Are the facts which I have mentioned quite conclusive? They may not be. I will see if I can confirm them. If the auriculo-ventricular orifice is contracted, then the auricle, by repeated endeavours to force the blood through it, will have become a little enlarged, and I ascertained on previous examination that I can feel the auricles, just obscurely, through the chest wall. That is the first collateral proof of the existence of stenosis I can feel the auricles beating. Then if this is really stenosis there will be congestion of the lungs, because if the blood-vessels of the lung cannot empty themselves freely there will be a back tide of blood upon the lung, and we hear that there are crepitations about the base of the lung, and we suspect that he has more or less congestion of the lungs—otherwise we cannot account for his cough and shortness of breath, nor for his bleeding occasionally. So here is additional proof of a contracted mitral orifice. If it is true that an insufficient quantity of blood gets into the left ventricle, then it must be true that a small quantity of blood must be sent through the arteries and there should be a small pulse. I told you that he had a very small pulse. Last of all, if there is any contraction and roughness of the mitral orifice, and if the auricles have difficulty in pushing the blood through, it is very likely that the auricles will produce in their efforts to pass through a very narrow auriculo-ventricular orifice a murmur which will be felt as a thrill when the hand is laid upon it. And there is a thrill here. So that there is in my own mind now no doubt whatever that with an enlarged heart we have contracted mitral disease and a little mitral regurgitation. I will ask now, What is the meaning?—for a diagnosis to be of any use ought to cover all the facts of the case. We have a slight systolic murmur at the aortic orifice, which means a little obstruction or constriction, or roughing of the aortic orifice; but I said that I heard now and again a little regurgitant diastolic murmur—that is not quite so sure, but I think so, and therefore we say an enlarged heart, a mitral contraction, mitral regurgitation, and imperfect aortic valve.

Now, that is the whole story of the diagnosis.

The next question we have to ask is, Is it sufficient to account for all the symptoms of the patient? Why is he yellow? He has apparently a little bronchial catarrh and some congestion of the liver. He must have them more or less, and every person with mitral constriction has these symptoms in some degree. The bloodvessels of the lung cannot empty themselves freely through the left ventricle. If that be so, the vena cava and its contributories cannot empty themselves, and there may be a back tide of blood upon the liver or upon the stomach. The diagnosis covers that fact and declares to me that he must have congestion and catarrh of his liver. Will it explain all the symptoms? It has explained his cough, bleeding, shortness of breath, and I have just now said it explained his icteroid hue. Does it explain his exhaustion? Well, yes, because the blood is stagnating in the deep parts of the body and an inadequate supply is sent through the arteries, the nervous system is imperfectly nourished, and the muscular system suffers because such a small quantity of blood is passing through the vessels. That is the diagnosis which I think you, in seeing this patient for the first time, would probably make.

Now one of the first questions which the friends will ask you in reference to a case of this kind is, What is to be the termination of a case of this kind? You must be ready to answer it. The prognosis of a case of this kind is exceedingly grave. The prognosis of many cases of heart disease is quite the contrary; it may be exceedingly good, and in order to put as a foil to the prognosis of this case I will mention a prognosis of another case which occurred in this hospital. It is a well-known case. There was once a house-governor of this hospital, a clergyman, who was about to be married. His intended father-in-law came to him and said, "You see you have no money, sir; you must go and get your life insured." At the end of the medical examination the physicians said to him, "We cannot accept you."—"Why?" said the astonished house governor.—"Oh, we would rather not say."—"But," he said, "I have never been ill in my life," (and, indeed, he was a sturdy fellow).—"Well," said the physicians, "if you will have it, you have got heart disease."—"Heart disease. How long shall I live? Shall I live for six months?"—"Oh, yes," replied the medical men, "you may do that." He went home and the match was broken off. He wrote to the committee, saying that as he had a mortal disease of the heart and could not live for six months he withdrew his application for rooms wherein to dwell with his wife. On the receipt of this letter the committee deliberated, and said, "We must superannuate him, poor fellow; and, as he has but six months to live, we will let him have his full pay." Accordingly he was superannuated upon his full pay, and upon this superannuity and full pay he lived for *more than fifty years*. About fifty years afterwards I was summoned to a case. The patient was suffering from cough and an attack of bronchitis. I felt his heart first of all. I felt that it was outside the ordinary place of beating, and when I listened I heard the most awful roaring mitral that I have ever heard in my life. He suddenly said to me, "Don't you bother your head about that mitral murmur, I wish to ask you about the bronchitis. That mitral has been there any time these fifty years." I finished my examination and went in with my colleague to consult, and I expressed my surprise at the character of the man whom I had just seen. I did not know him and was surprised at his familiarity with medical terms. "Well," he said, "he was the house governor of the London Hospital many years ago. He was declared to have a mortal disease of the heart and was superannuated on full pay, and he has taken his pay ever since." He was a bad bargain for the hospital. He got better from his bronchitis, and continued to earn his pension for some time longer, and I think he died at ninety-two years of age, having received his pension—I am afraid to say the exact number of years during which he was declared to be dying from a mortal disease of the heart.

That is the other side of the story, and I hope I shall be able to show you some one or other of these hearts as a contradistinction to this one, and to point to you the conditions upon which you may predict that with a fair obedience to the laws of health mitral regurgitation and some other mitral troubles may not seriously interfere with the duration of life or its ordinary duties.

But that is not the case to-day, and I merely mention this by way of contrast in the other instance. Those of you who have such a case to pronounce upon as the one before us will say, "This is an anxious case; the patient has a grave and serious disease of the heart." He has a disease of both valves of the heart, and it is of a kind that lays him open to perpetual dangers. For—think of it—but a small quantity of blood gets through his arteries, and if he had a very bad cold and the lungs got more congested there would be embarrassment, and the difficulty of passing the blood from the left ventricle would be greatly increased and the patient would die. He has other perils to general health. Indiscretions of diet will give rise to fresh troubles in his chest, and he will become weaker and weaker. The possibilities of the future are so many and so near at hand that in speaking to the friends you may say these two things: "It is a very anxious and

uncertain case, but with great care—that is, with the careful management of diet and freedom from exertion—his life may be indefinitely prolonged."

How are you going to treat a case of this kind? The best thing before you begin to treat such a case is to consider the object you have in view. You need not have the object in view of removing the imperfections of this heart. You must compensate them, if you can, and make the best of the conditions. The first thing is to keep up the strength and to help the heart as much as you can. There are two ways of helping the heart—by diet and by drugs. To-day we will take the hygienic method of helping the heart.

I might lay down the laws of health; but that is not enough—they must be somewhat modified for him. The healthy man need not be very much afraid as to the amount of fluids that he takes. He may drink two or three pints a day with perfect impunity—nay, sometimes with advantage. The first thing you have to do in settling a proper dietary for this patient is to limit the amount of his fluid. And why? For this reason. Fluids, as you know, are at once absorbed into the vascular system. They distend the vascular system and increase the bulk without increasing the nutritive character of the blood within the vessels. But, if you think of this man's state, there is already difficulty in passing through the heart the comparatively small amount of blood that is circulating in his vascular system, and if you increase the amount of fluid more than is physiologically necessary you will do most serious damage, and one of the ways in which cases of this kind are lost is by the wholesale giving to the patient things that will increase his thirst, and by gratifying that thirst the vessels get overfilled and render the difficulty of circulation insuperable. Diminish the amount of liquid. There is another reason why this should be done. The continual fear that one has for this man is that his heart shall fail in power; if anything were to enfeeble his heart very much, such as a big dose of ipecacuanha given for a cold, you may make his heart strike work at once. Much liquid will enfeeble the heart. If he drinks one or two tumblerfuls of water unnecessarily, from one to two pints, the work of the enfeebled heart is correspondingly increased. See how these little things tell upon the management of a case. What am I to do with his diet? I am going to put him on three rather dry meals a day. I am going to order—and I presume that he is a patient who can get the food that is necessary to do the best for him—I shall first see that he is warmly clad in order to protect him from colds, and he is not to use cold water for his ablutions. He is to have three good meals a day as dry as he can make them compatible with the small amount of fluid which I shall order. For breakfast he is to have cold chicken, bread and butter, fish, cold meat—he requires to be well fed—and he is to drink towards the close of his meal—he is to sip not more than half a pint of liquid—half a pint of *café au lait*, half a pint of cocoatina, or half a pint of tea (black China tea which has not been infused for more than five minutes at the outside). Which of the three does best must be determined by the idiosyncrasy of the patient. He is not to touch anything whatsoever until dinner, the ordinary English dinner—meat, bread, potato, green vegetables, milk pudding, and cold fruit,—but if the patient is rheumatic keep out the fruit; and he is to drink water, or if the heart is likely to fag use water with from half to one ounce of any good spirit put into it—not beer, not wines, not sparkling wines particularly. The partially fermented wines are liable to create fermentation in the stomach, to distend the organ, and to press against the heart, thereby producing serious evils. Then not less than five hours after the dinner he is to have high tea—toast and butter, a cutlet, game, and another half-pint of liquid of whatsoever sort he might prefer, and he had much better, if he could, do without anything more. One pint and a half of liquid is a hard allowance for a man and tries some people very much; and therefore if he cannot very well get on with this pint and a half, and if it does seem to you that a little alcohol is helpful to him, a little alcohol at night, with or without a biscuit, might be allowed.

What are you going to do about exercise? He is unfit for labour, but he might be a timekeeper, or a check-taker, or anything of that sort. But if he is in the better ranks of life you will say that, whatever he has to do, he is to be exceedingly moderate in exercise. It is not one of the forms of heart disease in which exercise is ever tolerated well. But, on the other hand, you need not wholly deprive him of exercise. Tell him also to avoid all hurry and worry, and scurry, and strain, and lifting; but so far as business life is concerned he should live a quiet, regular, occupied, tranquil life, go to bed early, and be as much occupied as he can be without physical exertion or strain.

Then you must come in here with your medicaments. You have to remember that he has got loaded in the bases of his lungs. You can see from his countenance that his liver is embarrassed and his bowels are apt to become costive, and one of the perils of cases of this kind is fatal congestion, and another is hæmoptysis. To relieve the lungs, give something to relieve the bowels. Sulphate of soda and phosphate of soda given in equal mixture, two or three teaspoonfuls in the morning, relieve the portal system and so relieve the right side of the heart and lungs. Or if he is a poor man one teaspoonful of Epsom salts in half a tumblerful of warm water will do the thing as well, though not so agreeably.

I have said that one of the things to be careful about is the strength of the heart. You must look to the heart to see that it is beating with strength, and, if possible, with regularity. If it seems fluttering it is one of the cases in which you should come in with strophanthus or digitalis. If he is sickish, strophanthus will be the best—five drops three times a day—and you will do well to conjoin with it ten drops of tincture of nux vomica every second or third day, with a saline aperient every other morning; add iron if his liver is cleared.

Occasionally in a case like this he will suddenly begin to cough up large quantities of blood. What are you to do in such circumstances? I have seen one or two patients killed by the administration of large quantities of gallic acid to stop the bleeding. What are you to do? Wait upon the hæmoptysis if you have the faith and the courage. It is a mechanical hæmoptysis. The auriculo-ventricular valve being narrowed the blood cannot get through and is mechanically accumulating in the lung and filling it up. We, instead of stopping the bleeding—unless it is of such an extent as to be immediately perilous to life—are right to hail it as a means of relieving the patient. When the patient is very ill—and sometimes these patients do get very ill and distressed by difficulty of breathing—and the heart is labouring and the pulse becomes small and feeble, so that the chances of life are diminished, there is one remedy that will immediately and greatly relieve him—that is bleeding. But nature will sometimes bleed the patient for you. Pray do not rush at nature. Administer some placebo unless the bleeding is of such extent and of a kind to immediately jeopardise life, when you must stop it.

ROYAL MICROSCOPICAL SOCIETY.—At the meeting of this Society, on the 15th ult., Mr. Curtis exhibited and described a microscope by Leitz on the English model, and Mr. A. W. Bennett gave a *résumé* of Mr. W. West's paper on New Fresh-water Algæ. Professor Jeffrey Bell then read a paper written by Mr. Sandeman on a Parasitic Disease in Flounders, in which were described certain round swellings, having the appearance of eggs under the skin, in some of these fish found on the coasts. On microscopic examination these tumours were seen to present all the characteristics of eggs, but the cause and habits of the parasite were very obscure. Mr. C. Beck raised a discussion on the possibility of obtaining a standard tube length, and Dr. Dallinger thought that a committee should be appointed to discuss the question.

PROPOSED FEVER HOSPITAL AT NORWOOD.—On the 22nd ult. Mr. Hedley and Dr. Downes, of the Local Government Board, resumed their inquiry at Croydon into the proposal of the Metropolitan Asylums Board to purchase the Grangewood estate at Upper Norwood in order to establish a fever hospital. The evidence of several witnesses was given to show that the project would be adverse to the wellbeing of the district. Mr. Kimber, M.P., addressed the inspectors on behalf of the Crystal Palace Company, whose interests, he said, would be seriously jeopardised by the establishment of an infectious diseases hospital in its immediate vicinity. On behalf of the Brighton Railway Company, Mr. Laing gave evidence to the effect that the company had expended large sums of money in the district and the shareholders naturally looked forward to the development of the locality, the prosperity of which would necessarily be imperilled by the presence of the proposed hospital. Mr. Lyon replied on the whole case, and the inspectors promised to report the result of the inquiry to the Local Government Board.

A Lecture
ON
MINERAL (NON-METALLIC) DUSTS, THE MANUFACTURE OF POTTERY, &c.

Delivered at the Sanitary Institute, on Nov. 16th, 1893,

BY J. T. ARLIDGE, M.D., A.B. LOND., F.R.C.P. LOND.,

LATE MILROY LECTURER AT THE ROYAL COLLEGE OF PHYSICIANS, LONDON; CONSULTING PHYSICIAN TO THE NORTH STAFFORDSHIRE INFIRMARY, STOKE-ON-TRENT.

GENTLEMEN,—A necessary prelude to sanitary science is to know what is insanitary. This knowledge has now been the object of research by medical men for a long series of years, and this Institute has materially contributed towards its attainment. All the old reputed elements—earth, air, fire, and water—have been scrutinised to discover what insanitary conditions are to be found in them severally. Fire comes scatheless out of the ordeal and obtains a place as a purifying agent, though at the same time it is harmful as excessive heat and often lends increased intensity to the action of what is insanitary in the other elements. But earth, air, and water are ever-present surrounding media often charged with health-destroying energies, aroused by the action of chemical forces, and especially so when organic matter is present, and, moreover, acting prejudicially upon physiological structure and function by abnormal contact. Ever-extending exploration of causes inimical to bodily health opens up to our view new facts and corrects old inferences. The ancient doctrines and theories of infection and contagion are, if not overthrown, vastly modified by microscopic research, by biological experiments respecting the minutest known organisms, and by pathological investigation coupled with wide observation of endemics and epidemics. To students of sanitary science, and necessarily, too, of medical science, an illimitable field of study is opened out by the microscopical and biological problems thus raised. Hitherto they have rather restricted their study to more prosaic, yet most important, topics to be found in the material conditions of human existence and in the surroundings of men—especially those of man's own creation—existing in the dwellings they erect, in the ventilation provided, in the system of drainage adopted, in the food and drink they consume, and in the mode of life they pursue. But there is yet another factor in sanitation which, in my humble opinion, has been greatly overlooked. I allude to the surroundings and conditions connected with occupation. We may secure the artisan good ventilation, good water, and watch over his food supplies assiduously, but we fall considerably short of our sanitary obligations to him if we leave out of consideration the health aspects of his labour and take little or no account of his workshop and its sanitation. As I remarked just now, this department of hygiene has been greatly neglected by sanitarians. And I must further add that, in the case of physicians when gathering the history of patients, small account is taken of the influence of occupation upon the health of the sufferers, and little knowledge or inquisitiveness is displayed concerning the manufacturing process they pursue or what may be their occupation. I hold, therefore, that great credit is due to the committee of this Institute for starting a course of lectures on the Sanitation of Industries and Occupations. It is now my privilege to bring under your notice the sanitary features of industries wherein mineral non-metallic dusts are generated, and to illustrate the subject by an account of the manufacture of pottery and of cement. You will observe that in the programme issued the forms of non-metallic mineral dust selected for treatment are but few out of many. The enormous industry of coal-mining and iron-stone getting, the very large one of slate-quarrying, and the cognate occupations of stone and granite and plaster-of-Paris quarrying, and of raising and working clays for the manufacture of pottery, of tiles and bricks, and other fictile products—all dusty employments—are matters outside the prescribed scope of the present lecture. That which remains for examination—pottery and cement-making—is of twofold character and calls for separate discussion, for the methods of making china and earthenware differ entirely from those concerned in producing cement; so, likewise, do the materials used, the processes followed, the character of the dust evolved, and therewith the effects upon health. Now scarcely any other manufacture has so strong a claim upon the attention of sanitarians as has that of pottery. It stands nearly at the head of the list of unhealthy occupations and exercises its pernicious effects almost wholly upon the respiratory organs by the production of bronchitis and of phthisis. Thus it is found that, whilst workmen engaged in other employments have a mortality from chest diseases of 7·86 per cent., potters exhibit one of 12·29 per cent. Likewise, with respect to phthisis, non-potters present one of 9·27 per cent. and potters one of 12·90 per cent.

THE MANUFACTURE OF POTTERY.

To understand the sanitation of the china and earthenware manufacture we must be acquainted with the materials employed, the processes to which those materials are subjected, and the methods of working or the manipulations called for on the part of the artisans. Subordinate but accessory to these topics are the habits of the workpeople, the legal conditions under which they work, and the character and arrangements of the manufactories. Nevertheless, as I read the programme submitted to me for my guidance, the properties and mode of action of the dust arising from the industry in question must form the staple of my present address. Bearing this limitation in mind, my observations will be first directed to the materials employed, which are all dusty or productive of dust in the processes they are subjected to. It seems to be superfluous to inform my hearers that china and earthenware are made of clay; yet it is necessary to guard them against erroneous conceptions of what such clay is. It is not the familiar buff and brown aluminous substance which we daily encounter wherever we go. It is a prepared article obtained almost exclusively from Dorsetshire, Devonshire, and, above all, from Cornwall, and it is composed largely of silica. The potter distinguishes several kinds of clay, differing in colour and in the relative proportion of alumina and silex, and which his technical skill teaches to use in varying proportions according to the character and quality of the ware he desires to make. For instance, when he requires a larger ratio of the siliceous matter he adds what is called "china stone." The ordinary ball and blue clay—the most akin to clay as ordinarily understood—enters more largely into the composition of common earthenware. The Cornish clays are white and, like "Cornish stone," are the produce of granite rocks in a state of disintegration and decomposition. Such is china clay, so called because its principal application is in the making of china.

The first business of the potter is to mix the required clays together, to produce a homogeneous plastic mass—such as those who have not seen the substance in potteries may have met with in the studios of sculptors. It is familiar also as the material of which clay smoking pipes are made, hence called pipe-clay. It has the property of drying rapidly and, when dry, of falling into powder. We have got thus far: that the basic matter for constructing pottery—the so-named clay—is very rich in silica, and that it is rendered more so by the addition of "china stone" and of flint. A strong magnifying glass or a microscope will detect in it the minute particles of silex of irregular shape, with sharp angles and points; and it goes without saying that a dust of this description must powerfully irritate the delicate mucous membrane and epithelium of the lung when it reaches it. Clinical observation abundantly confirms this fact. For a considerable time the inhaled dust is arrested in its advance towards the lung tissue proper by the mucous secretion in the bronchial tubes and by the expulsive energy of the cilia lining those tubes; but at length these resistant forces weaken before the constant entry of fresh dust, and in course of time the noxious material passes into the lymph channels and also along the finer bronchi, until it reaches the intimate structure and the air cells themselves. Here as a foreign substance it sets up inflammatory action; lymph cells spring up, the air vesicles become choked with inflammatory products, the tissue around them gets indurated, and the lung becomes sclerotic and useless as breathing tissue. The history of these

pathological changes is reflected in the symptoms exhibited by the sufferer. In the primary stage little inconvenience is felt: there arises a desire to clear the throat of some impeding mucus at the end of the day's work or upon transition to the outer air from the warm shop, and especially on rising in the morning. This expulsive act soon develops into a cough, and relief is obtained by the expectoration of more or less blackish viscid mucus. Presently there is a feeling of tightness in the chest, and the breathing grows less free and full. As time goes on these signs of disturbed lung function become more pronounced, and in the end the patient grows asthmatic—a victim of potter's asthma. Until this advanced stage of the disorder is reached, it is singular to notice how little attention and anxiety are bestowed upon the pulmonary derangements. This is because the general health is, for the most part, not seriously affected, and because while the sufferer breathes a warm air in his workshop or home his lung trouble is felt as little more than an annoyance, or as something which is to be taken as a matter of course, like his wages, as an unavoidable incident of his calling. As with chronic maladies at large, so with potters' bronchitis and asthma: the tendency is to grow worse and for the lung lesion to extend, and soon the damaged respiration reacts upon the whole frame; the sufferer cannot obtain proper outdoor exercise, his appetite fails, his sleep is broken, the expectoration augments and grows muco-purulent, the body wastes slowly, while the increased effort to breathe entails strain upon the heart, leading not infrequently to disease of that organ, with after-consequences in the shape of dropsical effusions. We now have before us the fully developed disease known as potter's phthisis or potter's asthma. The shortness of breath sanctions the use of the term "asthma," while the existence of cough, expectoration, and wasting is suggestive of the appellation "phthisis." Still these terms are not rightly applicable to the actual lesion present. The morbid changes are not those of tuberculous disease, and the symptomatology is diverse. At the same time it must not be lost sight of that tuberculous lesion may be, and not infrequently is, a concurrent condition, or that those predisposed to phthisis are likely to have that malady lighted up by the dusty employment they follow. To return to the processes followed in the making of pottery. The selected clays, with the usual addition of a certain proportion of powdered flint, are mixed with the water to make a thick semi-fluid called "slip." To render this fit for after processes its excess of water must be got rid of. This formerly was done by evaporation in tanks aided by constant stirring. It is now effected in specially constructed machines whereby the water is expelled by pressure. By either method a plastic material is produced ready for the hands of the potter, who moulds it as he sees fit. We may reckon pottery to be the earliest industry pursued by man: vessels for eating and drinking were essential things, tenacious clay was almost everywhere accessible, and its readiness for modelling into any shape must have been immediately perceptible to the simplest aborigines. Hollow vessels were a primary desideratum, and it needed but little observation to discover how easily these could be formed by a whirling or rotatory movement with pressure about a fixed point. Hence soon arose the invention of the potter's wheel, a piece of mechanism that has come down to us from the remotest ages—modified but little in detail and ever the same in principle. The artisan who works with the potter's wheel is called a "thrower," for he throws a mass of clay upon the rapidly revolving axis or central disc and by skilful manipulation moulds it into the required shape. Owing to the mechanical features of the apparatus he uses his business is the making of "hollow-ware," including cups. Modern invention has greatly curtailed the work of the thrower by introducing the processes of "pressing" and of "casting." Hence two new classes of operatives have arisen, known as "pressers" and "casters"—the former constituting the most numerous division of pottery artisans, and, which is regrettable, the greatest sufferers from their occupation. They are divisible into two classes, called respectively "hollow-ware pressers" and "flat-ware pressers," according as they make hollow ware, such as jugs and vases, or flat ware, such as plates. Both alike employ a twirling disc, known as a "jigger," but in other respects their operations differ. The hollow-ware presser constructs his jug within a mould of the requisite shape, divisible into halves; whereas the flat-ware presser spreads a thin lamina of clay upon his flat mould resting upon his rapidly driven jigger, and proceeds to smooth the surface and edges. The mould used determines the shape and size of the article made and also absorbs much of the moisture of the clay. The article, as yet in a soft state, has next to be slowly dried. This is done in a closet situated behind the presser, the transfer being made by boys, who from their work are called "mould runners." In former years the jiggers were turned by hand, but at the present day they are mostly driven by steam power. The surface of the ware as it leaves the hands of the throwers and pressers does not possess the smoothness required, and it has to undergo other operations before it goes to the oven. These are sponging, and friction with sand-paper, or turning. The first method needs no elucidation. The second, that of rubbing with sand-paper or some substitute, has grown, in the case of flatware, into an operation of considerable magnitude, and one of first-rate importance in relation to the health of the workers. Owing to "tow" having been first employed it acquired the appellation of "towing." It is done on a rapidly revolving jigger, the tow or sand-paper being pressed by the hand on the surface of the flatware to be polished whilst in the biscuit state. It will be at once understood how great must be the amount of the dust thrown off by this proceeding. So fraught with injury for the worker was it that regard to humanity and the health of the employed called for some provision against its patent evils. Happily the inventive genius of Mr. Turner, a manufacturer at Tunstall, suggested a simple plan of doing this work in a nearly enclosed box, provided with a strong current of air, produced by a fan, to extract and remove the dust as it arose, and thus to prevent its diffusion on and around the workpeople. By this mechanical expedient this dusty process has to a great extent been rendered innocuous. The operation of towing is specially applicable to flat ware, plates, and saucers. Where hollow ware has to be duly smoothened its surface is either sponged with a damp sponge or it is passed to a "turner," who finishes the surface by means of a lathe worked by a treadle in the same fashion as a wood turner deals with the objects submitted to him. The "pot-turners" constitute a special class of artisans, but not a numerous one. The treadles are worked by women and girls, who keep up a constant jumping action with one leg—a proceeding that is suggestive of evil to them, particularly when young and not strong. We, however, are justified in looking forward ere long to the displacement of this primitive way of giving motion to the lathes by the substitution of machinery; indeed, the change has already come about to a small extent in modern factories.

Here I am led to remark that the application of machinery moved by steam power has, in the history of pottery, been of very slow growth. Forty years ago it was unknown, and up to the present time human labour contributes a very large proportion of the moving force required in many processes. The nature of the material, by its brittleness as it becomes dry, forbids, indeed, the application of steam in many operations; nevertheless, every year witnesses the extension of the use of machinery in the trade. Owing to the brittleness of clay in a dried or nearly dry condition and its ready reduction to a pulverulent state, all who deal with it are exposed to its dust; for besides the larger operations previously alluded to there are lesser ones falling to the lot of clay workers. Principal among such are the handle and spout makers, the sand-paperers, and the varied helpers whose special business it is to clean off irregular and redundant fragments upon the ware. These cleaners are, in the language of the trade, called "fettlers." However, no special description of these people and their work is necessary; the primary agent for evil is the dust, and happily this evil is inconsiderable in the sundry minor divisions of labour adverted to. Powdered flint is also largely used in the manufacture of pottery, though chiefly in china making, where its main use is to pack the china within the boxes called "saggars," in which it is fired in the ovens. The filling-in of the saggars with powdered flint is the work of the class of men named "placers." Their work is less continuous than that of flat pressers, and in consequence their exposure to dust is not so great, though at the same time the dust inhaled is even more harmful than that of clay alone. It is a common thing for placers to act likewise as oven men and kiln men, and so to incur the additional risk attendant upon the drawing of ovens and the emptying of saggars. There is still another class of workers among whom flint dust is pre-eminently a cause of sickness and death. These are the china scourers—all women. Their business is to brush off the flint which has adhered to the china in the operation of firing. The quantity is considerable, and in its removal by brushes a cloud of dust is thrown off, which, if not diverted from the respiratory orifices, enters

the lungs and there works most serious mischief, setting up fibrous and rapid phthisis. Of all the operations pursued in the making of pottery, this one is the most destructive to health and life. Within a few years these scourers, if not dead outright, are broken-down women on the highway to the grave. Fortunately, compared with the whole number of hands in a china factory, they are few in number. The occupation ranks as about the lowest in the series of pottery avocations, for it is one that needs no special training, and, consequently, like other unskilled work, falls into the hands of the least instructed and the least concerned with sanitary scruples and social considerations. Another and far more important material used in pottery manufacture is lead. This is employed in the form of the white carbonate or of the red oxide of lead, the former being used most frequently. These and other salts of the metal are most common constituents of colours used in decoration; whilst others, principally the chromates, are themselves actual colouring materials. But the special use of red and white lead is—in conjunction with borax and china stone fired together in a kiln—to make an enamel to coat the ware, to give it smoothness, and to render it non-absorbent. The glaze or enamelling fluid is put on after the first firing of the ware, when it is in the condition known as "biscuit." In this state it is porous, absorbent, and unfit for use. The glaze is applied in a liquid state by simply dipping the ware in it, and the workmen occupied in this process are called "dippers." It very rapidly dries on the surface, some portion being absorbed. The very rapidity of drying causes much of the evil attending the operation, because it leads to the formation of a fine coating of dust readily diffusible. This fact, in conjunction with the mode of working, wherein the hands and arms of the dippers are almost incessantly plunged into the glaze, will account for the prevalence of lead-poisoning or plumbism in this class of workmen; for we cannot fail to recognise the inevitable absorption of the poison by the air passages in the shape of dust and by the skin from immersion in the liquid. A great effort is being made at the present time—promoted especially by the Home Office and the factory inspectors—to abolish if possible the use of lead in glazes; or, if this be not practicable, to diminish its employment and to guard against its poisonous properties. To attain these most desirable ends many glazes devoid of the metal, or nearly so, have been submitted to manufacturers, who, however, have not yet been induced to use them in the absence of sufficient experiments and experience to justify them in so doing. A more practicable way of lessening the serious evils of the poison is suggested—viz., by the use of fused lead glaze only, without the usual addition of raw white lead. The value of the suggestion is now being fully tested, and it is to be hoped that a great reduction of the serious evils connected with the glazing of ware will reward the trial. But, even supposing that the use of lead cannot be dispensed with, experience unmistakably proves that its serious results may be very largely mitigated by greater attention, on the part of the artisans themselves, to cleanliness in person and in working. Men can be found who have been dippers for ten, twenty, and even thirty years, and who have escaped the direful consequences of their occupation entirely or nearly so. Such men are the careful and clean workers, and men who lead steady lives. It requires personal observation to realise the carelessness and recklessness of workpeople who perfectly understand the danger of their calling, but who will eat food exposed to the contaminated air of the dipping-house, and this often with unwashed hands; or who will take little or no pains to cleanse themselves and their clothing on leaving work, or who will neglect to properly protect themselves from the bespattering glaze by suitable coverings. For such persons the interposition of factory regulations is urgently needed. Much more might be said on this subject of lead as used by potters and of the consequences attendant thereupon; but I forbear, knowing how fully and forcibly the subject of plumbism will be placed before you by my distinguished colleague in this course of lectures, Dr. Oliver, who has made it a special study, and enjoyed the best opportunities for observation in this country. There is yet another ingredient that enters into the composition of china, not so directly chargeable with injury by its dust. I mean calcined bones of horned cattle. These are finely ground and mixed with the clay to form the "body" of china or porcelain ware. The bone gives transparency and lessens the brittleness. It is an expensive component, and on the Continent is replaced by felspar. This last-named substance is in England principally used in the production of Parian goods—mostly figures; but no facts are in evidence to indicate how far its dust is prejudicial. I have said that the powder of the calcined bones added to make the body of china ware is of small consequence hygienically. Still it is but right to remark that bone dust proves very irritating to those who have to mix it, and that besides its mechanical action an annoyance often arises from a pungent offensive odour it gives off. Moreover, practical potters assure me that the compound of clay and bone dust, as used in china-making, exhibits a caustic and destructive quality not found in clay itself. It softens and destroys the wooden troughs of the throwers, which have in consequence to be faced with lead, and it is corrosive to clothing. These mischievous properties one is inclined to assign to the nature of bone dust as a phosphate of lime; and as the dust of china-making is admittedly more noxious than that of the manufacture of earthenware one cannot resist the impression that, over and above the harm attributable to the higher percentage of silex in china contained in it, additional injury arises from the calcined bone present. To justify this allusion to bone dust in the category of mineral dusts, it is almost needless to say that in pottery it is only the mineral element of bones, after complete calcination, that is dealt with. There is yet another mineral dust used in pottery. I allude to plaster-of-paris, which is very extensively used in the making of moulds and models; but this, though readily diffused around the workers, does not penetrate into the lung parenchyma as does ordinary potter's clay dust, and its pathological results are not nearly so conspicuous. It is conceivable that this circumstance is owing to its strong affinity for water and its consequent arrest by the moist oro-nasal and bronchial mucous membrane ere it can penetrate to the finer tissue of the lungs.

Having now passed in review the mineral dusts used in the manufacture of pottery—earthenware and china—and noted the processes wherein those dusts are evolved, it seems to be necessary, in addressing the members of a sanitary institute, whose primary purpose is to devise sanitary remedies, to say something respecting measures calculated to remove the evils of the trade or at least to mitigate them. Those evils are very obvious, and unhappily their consequences are no less so. The business of the potter, as I said before, stands nearly at the head of the list of unhealthy trades, and it is an imperative duty to endeavour to give it a better position. The insanitary factors are the mineral dust of clay, of silex, and of lead; subordinate to them are high temperatures and the dusty and smoky atmosphere of a trade which demands a prodigal use of coal. The dust of clay and flint operates directly on the breathing organs; hence our efforts must be directed to obviate its entrance into the respiratory passages by mechanical means. These means consist in first of all providing efficient ventilation in workrooms, and next in devising apparatus to prevent dust from diffusing itself on and around the workers and to withdraw it altogether from the shops. Until recent times such measures had been totally neglected or attempted by very ineffective arrangements. Now pressure exercised by the factory inspectors and strongly seconded by aroused public opinion has had the effect of introducing rapidly modern schemes of ventilation into factories, and also inventions to remove dust from the point at which it is generated. To accomplish these ends the chief instruments employed are ventilating and extracting fans. I cannot here enter into details of the mechanism adopted. Indeed, such a course is not called for, because present plans are more or less only tentative, and we may look for important modifications and improvements as a result of experiments. One drawback to the more general adoption of mechanical appliances is the absence in numerous factories of motive power supplied by steam or gas or electric engines, an absence largely attributable to the smallness of the works and want of capital, and to the frequent irregular arrangement of detached shops and the consequent difficulty of conveying power. Nevertheless, the future course to be followed to improve the hygiene of the potter's craft is sufficiently plain, and engineers and architects should give much more attention to the subject than they hitherto have done. Respecting the subordinate factors of ill-health among potters little need be said. The regulation of the heat of workrooms is very much a matter of ventilation and of construction. The heat emanating from the closets wherein the ware is first placed can be moderated by care and lessened by ventilation of the closets themselves; and that of the shops can

be reduced by alterations in their construction and disposition and by ventilating arrangements. The introduction of steam and hot-water pipes for warming the shops, in place of the old-fashioned stove pots, has reacted injuriously upon the health of the operatives; because, for the most part, whilst securing warmth, it has been at the sacrifice of ventilation. The enormous combustion of coal in firing pottery and the dust and smoke attendant upon it represent evils which we may yet hope to see removed by the adoption of gas in place of the crude coal. Experience in America and elsewhere has proved the applicability of coal gas for firing pottery, and nothing more is now wanted than the inventive genius of engineers to contrive arrangements for substituting gas which shall be both efficient and economical. Another factor of no mean importance in relation to the occupation of the potters is to be found in the habits of the workmen themselves. It is, as I have said before, particularly prominent in the instance of those who are brought into contact with lead, in whose case experience sufficiently proves to how great an extent care and cleanliness in work and dress, temperate living, and the use of some simple prophylactic expedients will enable them to proceed with their task unaffected for a series of years. All this is generally and equally true of every other department of the potter's business; in short, much of the sickness and mortality of the trade is avoidable by care, cleanliness and temperance, and without these qualifications no mechanical arrangements and no official rules can be successful in obviating the evils of their calling.

THE MANUFACTURE OF CEMENT.

This is a manufacture of no inconsiderable dimensions, although the numbers employed in it are not many. The material made is known as Portland cement and is an artificial product serving the same purposes as does Roman cement, which is a natural product found in volcanic deposits. It has been a greatly persecuted form of industry, driven from the habitations of men to places where population is sparse, the surrounding land comparatively valueless, and the chances of prosecution for public nuisance and for destruction of crops are but few. All this has followed from the malodorous and destructive vapours thrown off in the course of manufacture, whose ill results have been magnified by public sensitiveness and prejudice.

Let me first say what cement is in its composition. Chemically speaking, it is a mixture of carbonate of lime and silicate of alumina; or a double silicate of lime and alumina coloured by oxide of iron. The rough components are carbonate of lime (usually chalk), flint and clay, the last being of a selected tenacious character, and obtained from ancient lake bottoms, from river beds, and from like places of past or present subsidence. The first process is to grind the clay in a mill resembling a mortar grinding machine. After that the necessary portions of flint and lime are added and worked together with water into a mud-like mass. Formerly the amalgamation of the raw materials with water was done in tanks with the aid of heat, and after very prolonged stirring and time to allow settlement the material was submitted to a process of wet grinding and was ultimately calcined in open-topped kilns. Now the mud-like material is spread over the floor of large vault-like chambers, heated by a furnace at one end. After being there duly dried and subsequently calcined the cement is ready for grinding between mill stones. The aim is to reduce the compound to as fine a powder as possible. Few manufacturing processes are more simple in principle. A semi-liquid mud is prepared and thoroughly mixed, then dried and calcined, and afterwards ground in a mill. Nevertheless, it presents possible causes of illness both by heat and dust. For example, a very high degree of heat is attained in the drying chambers or vaults, and when it has done its work the residual dry cement has to be removed by shovels and sent up to the surface. As the excavation is piecework labour, and a speedy emptying of the chamber is desirable, it is common for the labourers to descend into the chamber before the material has sufficiently cooled, and thereby to suffer from exhaustion due to heated air conjoined with strong physical exertion within a confined space, and in the presence of gaseous products not quite innocuous. As a matter of course, the excavation of the dry cement is attended by considerable dust, though to a less degree than the subsequent operation of grinding. The dust generated in either way is highly irritating to mucous membranes, and it causes heat and smarting of the eyes, and still more of the nose. In the case of the latter organ the irritation advances to local inflammation, and later to ulceration, which especially attacks the septum of the nose and ends by producing perforation. Further destruction of tissue follows should work be continued and no efforts at treatment be made. This partial destruction of the septum nasi is a lesion well-nigh peculiar to cement makers. It is brought about by the irritating dust, which clogs the nasal passages and provokes efforts to dislodge it by the finger-nail, with consequent aggravation and extension of the ulcerative inflammation already set up. The character of the dust cannot fail to prove highly irritating to the mucous membrane of the air passages, but, thanks to protecting coverings of the mouth and the remarkable affinity of cement for water, almost the whole of it gets intercepted in the nose, where it forms a plug, the expulsion of which is impelled both by the volition of the individual and by automatic or reflex action. It must, however, be admitted that some of the finest particles do, in course of time, penetrate to the larger bronchial tubes and eventually produce cough and shortness of breath, or a chronic bronchial asthma. In this occupation of cement-making there does not appear to be much scope for sanitary appliances; still, something might be done in the grinding department to obviate the diffusion of dust. It may be urged that in the case of cement mills the number of persons employed is insignificant; but, even if this be true, humanity imposes the onus upon proprietors to lessen, if not to altogether remove, a tangible cause of sickness, and the example of flour mills, to some extent at least, indicates how it may be done. In all dusty trades there is a simple expedient against dust inhalation to be found in the wearing of a respirator, and it is one that would seem to be well calculated to effect that object. In very many occupations, indeed, respirators are applicable, and would be far more so if improved and specially constructed to provide against the breathing of dust. Unfortunately this specially adapted character is not one commonly met with, for in their construction the principles necessary to make good respirators for sick folk who only want protection from cold and damp air are those followed. The fine wire gauze is not essential; it does not intercept fine dust, and the firm frame is only an impediment to the close adjustment of the dust-filtering material to the depressions about the mouth and nose. The gauze with the inserted film of wool becomes speedily choked with fine dust mixed with the moisture of the breath; and the whole apparatus impedes free expiration and inspiration, and when choked it cannot be readily cleansed. A respirator must not be rigid, and its essential part in opposing the inhalation of dust should be a film of cotton wool, so stretched and supported over the mouth and nose that it lies in immediate apposition to the cutaneous surface of the face around them. For a long series of years I and others have tried assiduously to induce pottery workpeople exposed to dust to wear respirators, but with so little success that our endeavours must be accounted failures. The freedom of breathing is so embarrassed by them—and what seems to be of more account, if the female workers do not deceive us, the freedom of talk also—that they prefer to breathe dust rather than wear them. Another objection arises from the inherent sense of beauty lodged in the breasts of all ladies; a sentiment seriously offended by the enclosure of the mouth by an ugly respirator, which is contemptuously called a "muzzle," and which, in the presence of unmuzzled workers and their jests, only singularly strong-minded individuals can persevere in wearing.

Those who have favoured me with their attention during this discourse on the making of pottery will be disposed to ask why I have said nothing, or next to nothing, of the ornamentation of ware by the processes of printing, gilding, and colouring—processes constituting the business of the finishing or decorative department. The omission will seem to be much more glaring when the large number of hands employed in that department is taken into account; for the number so occupied equals, if indeed it does not surpass, that of those working in the clay department. But the fact is that the ornamentation of pottery by painting and gilding is a form of work differing entirely from that of pottery-making properly so called; though in almost all cases the two kinds of occupation are pursued in the same buildings, and those engaged in them are grouped together under the general heading of "potters." The hygienic features in common are: indoor labour, the use of lead, and, in the case of a small band of workmen, exposure to heat. Respecting the first-named no remarks are needed. In the matter of lead the hands engaged in decoration are in injurious contact with the poison in the form of colours in majolica painting, in "grou d laying," and to a very

small extent in ordinary enamel-painting. Lastly, as to exposure to heat, and omitting that experienced in working in hot shops, the two departments meet on common ground in kiln work—a process of firing needed to fix and make permanent the gold and colour decoration used for ornament. At the same time the conditions of labour in kilns and in ovens are not alike, those in the former being far less severe, considered in their hygienic bearings. The sanitary features of the decorative and finishing department exist, however, in a pre-eminent degree in the conditions more or less inseparable from sedentary labour. Such are the sitting posture with the body more or less inclined forward, the want of muscular movement necessary for healthy respiration and circulation and for muscular nutrition, and, lastly, confinement in shops too frequently over-heated and under-ventilated and with the atmosphere rendered foul by the breath of numerous workers and by the products of gas combustion. These factors are common to all sedentary occupations and need not be enlarged upon by me, although in the department of work in question they are most weighty from a hygienic point of view.

I will now conclude by cordially thanking my hearers for the patient attention with which they have favoured me and trusting that I have succeeded in elucidating the sanitation of pottery manufacture as far as the compass of a single lecture would permit.

FURTHER OBSERVATIONS ON THE MORBID ANATOMY AND PATHOLOGY OF EMPHYSEMA.

WITH AN ACCOUNT OF THE CONDITION OF THE PULMONARY NERVES.

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IN a former communication[1] I described the character and course of the microscopical changes in emphysema, more particularly as they occurred in the more acute or sub-acute examples of the localised variety of the disease, or that variety which has been styled "vicarious" by Hertz and others. Therein I essayed to demonstrate that the prevailing opinion as to the entirely atrophic character of the morbid alterations was only partially correct, inasmuch as productive and reactive phenomena in the air cells were the very earliest structural indications of impending emphysema. In the present communication, after briefly considering the chief varieties of emphysema, I propose to describe certain fibroid lesions which seem to constitute an integral part of the affection, and thereafter I shall present a few considerations respecting the pathology of the disease, together with a description of certain changes which are to be found in the pulmonary nerves.

VARIETIES OF EMPHYSEMA.

Several varieties of emphysema are described, although the classifications adopted by different writers are by no means alike. In Fox's work, edited by Dr. Coupland, there are given—(1) Acute vesicular emphysema, a recoverable condition, and of either a general or partial character; (2) chronic local emphysema; (3) generalised "large-lunged" emphysema (Jenner); and (4) generalised atrophous emphysema ("small-lunged" emphysema of Jenner). Hertz classifies emphysema as "substantive" or "substantial" and "vicarious." The former he describes as an idiopathic affection developed in all diseases which are accompanied by severe paroxysms of coughing, or in any other forced movement of the breath; vicarious emphysema, on the other hand, is found in connexion with conditions of the pulmonary parenchyma, in which, owing to the impermeability to air of certain parts of the lung, the remaining alveoli become over-distended. Waters in his monograph—a work characterised by the most admirable fidelity to detail and impartial analysis—describes three varieties. The first of these he names "partial lobular emphysema." It is found either involving a few air sacs or a single lobulette, when it has much the appearance of vesicles of pemphigus. These vesicles push out the pleura, thus raising it above the level of the surrounding lung tissue. In other cases it exists along the margins of the lobes of the lung, resembling a row of beads. This "partial lobular" emphysema is, however, only rarely found as an independent affection; it is most commonly found in lungs in which the second form exists, or "lobular" emphysema. This is the form of the disease most commonly met with at post-mortem examinations; it involves one or more lobules in different parts of the lungs, especially the anterior margin, the margin of the base, and the apex; in the latter situation it is not infrequently associated with healed phthisis. The third, and by far the most important, variety Waters terms "lobar." It most frequently attacks both lungs and the lower as well as the upper lobes. Lungs so affected possess a peculiar doughy feel, pit on pressure, are wanting in healthy crepitation, and have a colour like that of a calf's lung. No collapse occurs on removal of the chest-wall, but, on the contrary, the organ often bulges forward.

Although, no doubt, certain discrepancies exist regarding what may be classified as "local," or "vicarious," or "substantive" forms of the disease, it is clear that, generally speaking, chronic emphysema is either definitely partial or localised, or else pretty uniformly lobar or generalised. Of more importance is the question of the exciting causes and pathology of these different kinds. While admitting the great influence of the mechanical forces of respiration in the production of emphysema, more especially that of expiration, as the masterly work of Sir William Jenner has so admirably shown, it nevertheless has been forced on the attention of all observers that in many cases, and especially in the "large-lunged" or substantive form of the disease, a primary dystrophic lesion of the pulmonary tissue has probably to be reckoned with. So impressed was Waters with this circumstance that he regarded all cases of "lobar" emphysema as of this nature. "This form of the disease," he remarks, "differs very materially in its pathology from the partial emphysema I have spoken of in a former paragraph. ..... I do not entertain the slightest doubt that the disease in its severer forms is of a constitutional nature; that one of its most important features, and perhaps the primary step in it, is a malnutrition of the pulmonary tissue, causing its degeneration and giving rise to all the structural changes which I have previously described." This view receives support from many instances brought forward by other observers, and was forcibly impressed on my mind in the case of a boy aged fourteen, who was an out-patient of mine in the Glasgow Royal Infirmary in November of last year. Since his second dentition he had been gradually developing generalised emphysema until his chest was enormously distended. The emphysema was quite unattributed to any bronchial affection; indeed, cough had been but slight, and when I saw him he complained but little of it. He was, however, as may be expected, very cyanotic, and was generally emaciated and in a debilitated condition. Cohnheim imagined that in such cases there was a developmental defect in the elastic tissue of the lungs, while Eppinger believed that the elastic fibres existed in less quantity than normal. These views have not however, received support from the observations of others.

SUMMARY OF THE MICROSCOPICAL CHANGES.

For the more detailed account of these, my former paper, already alluded to, may be consulted. Therein it was pointed out that the earliest anatomical change consisted in enlargement and division of the nuclei in the walls of the air-cells. This I supposed to be reactive in character, induced by the heightened tension of air, a change of a compensatory nature, and in so far comparable to that which takes place in the intima of a bloodvessel in commencing atheroma, wherein, owing presumably to increased tension in the vessel, the nuclei in the intima show proliferative changes. I do not, however, wish to insist on this analogy, cognisant, as I am, of the difficult problem which the origin and nature of atheroma involve. In this alteration the nuclei of the capillaries seem to participate, causing a constriction of the vessel, or else from atony of the part the vessel opposite these nuclei collapses. Now, while these phenomena are to be observed in recent cases of partial emphysema, I have not been able to demonstrate them in cases of old-standing lobar emphysema. In these, no doubt, the very earliest changes are often impossible of detection; but, apart from this, it is extremely doubtful whether in some at least such a condition occurs at all. It is more likely that degenerative changes alone take place. My reason for inclining to this view is that in examining air cells which had undergone no dilatation whatever—cells in the central portions of such lungs—the

[1] THE LANCET, July 2nd, 1893.

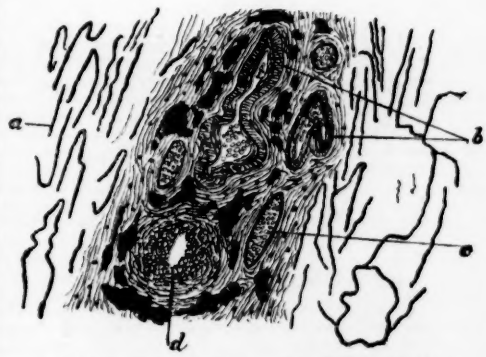
corpuscles had, in point of fact, undergone a highly granular change. This seemed to show that a nutritive alteration had taken place apart altogether from dilatation of the vesicles. In cases, however, where the formative activity of the mural corpuscles is evinced but a short period seems to elapse ere the atrophic stage is ushered in. Herein the protoplasm becomes highly granular and often all but disappears, and the delicate connective tissue membrane likewise becomes granular and riddled with holes, which enlarge and coalesce. Not, however, until these destructive alterations are fairly established do the capillaries begin to disappear, and it is clear that deprivation of blood is not the determining cause of the textural alterations; in fact, it is often surprising what a discrepancy sometimes seems to exist between the blood-supply and the lesion of nutrition. As regards the elastic fibres, no structural alterations can be made out with the microscope until a comparatively advanced stage of the disease, and even then only the finest of these seem affected. This also consists in a finely granular degeneration. No doubt an atonic state of these fibres is early engendered, as evidenced by their rigid appearance and absence of any disposition to curl up, together with frequent ruptures. The question of the relation of the corpuscular and vascular changes to the degeneration and rupture of the elastic fibres is by no means easy of solution. This point was prominently enforced on the attention of Professor Coats and myself when recently engaged in a research on the pathology of aneurysms, the results of which have been partially laid before the profession.[2] In many cases of commencing aneurysm of the aorta we observed a granular condition of the elastic fibres of the middle coat, but there was always so much inflammatory and other change coexistent in the vessel wall that we were unable to obtain clear evidence of the primary nature of the atrophy of the elastic tissue. On the other hand, we found frequent ruptures in apparently healthy fibres. In the case of emphysema the conditions are perhaps not exactly parallel, seeing that inflammatory[3] changes have to be eliminated, but it certainly must be contended that by the present methods of observation no inherent changes can be detected in the elastic fibres until such have been rendered abundantly manifest in the more delicate structures. As regards the influence of distending forces it is my belief that these, even when excessive and frequent, will not cause a permanent distension of any moment, provided that no ruptures occur and that the other tissues of the part remain intact and uninjured.[4]

FIBROID LESIONS IN EMPHYSEMA.

The examination of lungs, the seat of emphysema, has impressed me with the necessity for recognising more emphatically than hitherto the nature and significance of interstitial changes of a somewhat variable character which occur quite independently of *associated* lesions of this description. Sir William Jenner, indeed, regarded the fibroid variety of degeneration to be that most frequently met with in the emphysematous lung and held that it was "the consequence of the exudation of that variety of lymph which escapes from the capillaries when they are the seat of slight but long-continued congestion." This opinion has not been permitted to pass unchallenged, but my observations go to support Sir William Jenner's statement. In cases of partial or localised emphysema the fibroid alterations are usually different in character and are also more unevenly distributed than those which are discovered in the generalised type of the disease. In the former the interlobular septa and the adventitious tissues of the pulmonary vessels and bronchi are notably thickened and infiltrated and present an unusual deposit of pigment. The branches of the pulmonary arteries are irregularly puckered and frequently quite collapsed in the midst of this tissue. The irregular character of this contorsion quite negatives the possibility of contraction occurring *in articulo mortis*. Others appear as solid cords, either as the result of this collapse or else from obliterative endocarditis (see Fig. 1). Notwithstanding the serious nature of this change, numbers of dilated capillaries are often found in the thickened tissue, and, judging from the nuclear character of certain areas, it is not improbable that some of these vessels are in some cases newly formed. As the main vascular branches, and notably those of the pulmonary veins, become gradually narrowed the ever-increasing force of the heart due to progressive destruction of the vascular area in the lung asserts itself by causing congestion and dilatation of the capillaries, and this in turn tends continually to augment the indurative change. This induration, then, which has its chief seat around the bloodvessels, traverses the emphysematous area in the form of an irregular network. Many of the contiguous air cells also partake of this thickening, although it is likewise common to find them wasted and flattened out from the impact of the column of air which acts from the centre of the lobule towards its periphery.

In the "large-lunged" form of emphysema, and especially in those cases which seem to originate as an independent affection not due to chronic bronchitis, fibroid development is a characteristic feature. Sometimes the fibrosis partakes more of the character of that already described, but I have now observed two cases in which hyperplastic changes of a highly organised character were uniformly proceeding throughout the organ. In these the bronchial tubes were thin and wasted

FIG. 1.



Indurated and pigmented septum in localised emphysema. *a*, Remains of wasted and flattened alveoli; *b*, Shrunken and contorted vessels; *c*, Dilated capillary, which has also undergone some compression; *d*, Vessel almost occluded by endarteritis obliterans.

and somewhat dilated, but the outer coat of pulmonary vessels, the inter-lobular septa, and regularly recurring groups of the pulmonary alveoli were invaded by a growth of new tissue of a most vascular character. There was no shrinking or obliteration of the main vessels in the septa; on the contrary, they were as patent as in the normal condition, for the lungs were uniformly expanded. But the majority of the air-cells were granular and bloodless, and, as if to compensate for this, the remarkable development had occurred of which I speak. No doubt a great number of highly dilated capillaries existed along with the newly formed vessels, but the evidence as to the latter was quite unmistakable. The change appeared to begin by the deposition here and there of small round clusters of nuclei, thickly set together, and in these clusters the delicate new vessels were easily seen just in course of formation and extending in interbranching lines from others outside the clusters. The vessels so formed grew and extended until they assumed fairly large dimensions and formed a fairly extensive anastomosis. Considerable areas of alveoli became the seat of this vascular growth; their walls were much thickened and in their interior there was a number of granular corpuscles (see Fig. 2). Sometimes the new vessels dilated until some of them became confluent at points, when the resultant vessel had an irregular appearance in the tissue. In other cases they ruptured into the alveoli, until it was not infrequently difficult to determine whether the alveolus with its nuclear lining was not in reality a large-sized bloodvessel. In regard to these appearances it may be mentioned that Rindfleisch[5] has described the existence of an anastomosis between the pulmonary artery, on the one hand, and the pulmonary and bronchial veins on the other, in the form of "peculiar unbranched vascular arches, whose diameter is accordingly the same throughout." This vascular

[2] Brit. Med. Jour., Aug. 26th, 1893.

[3] I use the word "inflammatory" here in the more ordinarily accepted sense, and without committing myself to the exclusive view of the inflammatory process which some adopt.

[4] This receives partial confirmation in the case of so-called acute emphysema occurring in bronchitis &c.; also in the case of the skin in long-standing distension from œdema &c.

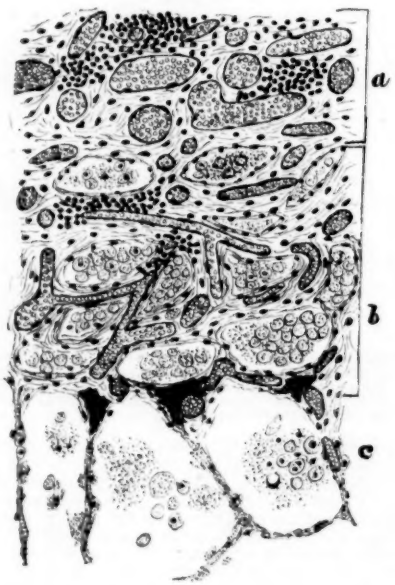
[5] Pathologische Anatomie: Article, Emphysema.

formation is always accompanied by new growth of fibrous tissue, which, as has already been remarked, was chiefly formed in the adventitia of the bloodvessels in the septa and in more or less regularly recurring groups of alveoli in the vicinity of these septa.

CONDITION OF THE PULMONARY NERVES: THE PATHOLOGY OF EMPHYSEMA.

In conducting a microscopical examination of the pulmonary textures in emphysema my attention was directed, quite by chance, to what seemed to be a most abnormal condition of certain nerve fibres which came within the field of vision. I shall, however, preface my remarks by making allusion to the structure and distribution of the nerves of the lung. Here I am indebted to a short paper by Egorow on this subject.[6] Working in Professor Chrzonszczewsky's laboratory on the pulmonary nerves in amphibians and mammals, this observer states that the main trunks are found to be of a mixed character—that is to say, they contain medullated and non-medullated fibres. The chief bulk of the fibres are derived from the pneumogastric, the others pertain to the sympathetic nerve. In the course of the nerves, and especially at their

FIG. 2.



Section showing vascularisation and fibrosis in emphysema. *a*, Outer edge of adventitia of bloodvessel; *b*, altered portion of pulmonary parenchyma, the alveoli containing round cells; *c*, dilated and ruptured alveoli with granular walls and contents, and showing deposition of pigment at their junction with the fibroid patch.

bifurcations, there are many small ganglia. These ganglia are often surrounded with an endothelial-lined sheath. The medullated fibres after leaving the main stems pass through the walls of some alveoli in a diagonal manner and, losing their sheath, terminate in a network in the sub-epithelial layer of the alveolar septa. Many of the non-medullated fibres likewise distribute themselves to the alveoli, and, in addition, to the pleura and the walls of the bloodvessels.

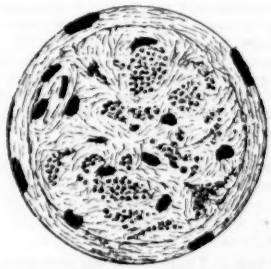
These nerves are to be found in abundance in the fibrous septa of the human lung, and especially in connexion with the smaller branches of the pulmonary artery which run in this situation. In cross sections small ganglia are often observed in them, and I have counted as many as six or seven. They are usually surrounded by a clear space which shuts them off from the nerve fibres; at one pole, however, a nerve fibre may be traced entering the ganglion.

In all cases of extensive emphysema which I have examined marked interstitial changes have been present in the nerves, with usually wasting and granularity of many of the fibres. This change is found in nerves not directly involved in the emphysema, in those near the root of the lung, and in cases where bronchial atrophy exists, as well as in those presenting chronic bronchial inflammation. In the earliest stage it is found, on making longitudinal sections, that the nerve trunk is inflamed, as evidenced by distension of its bloodvessels and occasional hæmorrhages. Along with this, the corpuscles in the endoneurium are notably increased and actively dividing, being engaged apparently in the formation of young tissue. Latterly, as the interstitial tissue increases and becomes more fibrous, the number of nuclei becomes much diminished and the nerve fibres, in isolated and irregularly distributed patches, tend to assume a granular character. In some fibres, however, the sheaths of Schwann are quite well defined in the midst of the fibrous tissue, while in others they cannot be demarcated. According to Sidney Martin,[7] the sheath of Schwann is the first to disappear in cases of chronic neuritis.

The point which addressed itself to my consideration was whether the nerve degeneration was not merely a part of that occurring more or less generally in the organ. Inflammatory and degenerative changes are usually found surrounding the nerves, but in certain cases the amount of change observed in the nerve was scarcely compatible with that in the surrounding tissue, and also great degeneration of the nerves was found in the midst of tissue which had not been much affected by inflammation.

The experiments of Brown-Séquard have proved that irritation of the pneumogastric quickly develops emphysema. In a paper published by him in THE LANCET of Jan. 7th, 1871,

FIG. 3.



Section of a pulmonary nerve in emphysema. The greatly thickened perineurium and endoneurium are seen, the latter containing a few scattered nuclei. In the thickened tissue irregular groups of nerve fibres are seen, being mostly in a state of granular degeneration.

he states that emphysema will appear on irritation of the brain by cutting or crushing when not a single respiratory movement takes place, and in a subsequent communication to the French Academy he showed that excitation of the vagi immediately after death would produce emphysema, and the nearer the lung the excitation is made the more apparent is this emphysema.[8] Hence he concluded that nervous disturbances in the pneumogastric play a part in the production of emphysema along with the mechanical forces of forced inspiration and expiration. The rapid accession of emphysema in cases of nervous asthma he also held to be confirmatory of this opinion.

In cases of idiopathic or substantive emphysema (already referred to) the idea of a primary lesion of nutrition may, possibly enough, be substantiated by what has been revealed in the pulmonary nerves. It is quite possible that a trophoneurosis may be engendered, due to the action of a poison in the nerve endings in the lung (as, for instance, in whooping-cough) or to more obscure causes. The frequent association of this form of emphysema with gout likewise suggests such an etiology, as the latter disease is thought by many to be a species of peripheral neuritis. In like manner joint diseases of nervous origin are to be considered in this connexion. On the other hand, in those cases of emphysema which seem dependent on chronic bronchitis it may well be surmised that the chronic irritation which undoubtedly extends to the nerves in the fibrous tissues of the adventitia is such as to provoke the development of the disease and to render the

[6] Centralblatt für die Medicinische Wissenschaft, 1879, No. 18.

[7] Journal of Pathology, February, 1893.

[8] See THE LANCET, Oct. 17th, 1885.

action of the respiratory forces more speedy and certain. The rarity of emphysema in cases of hysterical cough, even when severe and long-continued, seems to lend confirmation to this view.

Lugar-place, Glasgow.

THE EARLY PHASES OF DISEASE.

BY HARRY CAMPBELL, M.D.,
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THE advance of clinical medicine during the past half-century is matter for congratulation; be it observed, however, that this advance has been chiefly in respect of the more obtrusive kinds of disease, and of these, again, in their well-developed phases. Thus, pulmonary phthisis, pleurisy, valvular affections of the heart, nephritis, cerebral hæmorrhage, typhoid fever, and the like, which have an unmistakable morbid anatomy and a definite and easily recognisable symptomology, have been laboriously studied so far as what may be called their "obtrusive phases" are concerned. Such obtrusive disorders are at this moment being minutely observed all over the civilised world, and the discovery of one hitherto undescribed, such as acromegaly, is everywhere hailed with eager interest. But, while much attention has been paid to these diseases of the hospital ward, those which are less ostentatious in their manifestations, revealing themselves almost wholly by subtle functional disturbance, have received comparatively little notice; and diseases of the former class also, while yet in their initial stages, have shared the same neglect, as well as a host of minor ailments which do not, as a rule, pass on to severer forms. The cause of this neglect I conceive to be twofold. In the first place, the diseases which manifest themselves obtrusively lend themselves readily to study, their symptoms being in a large degree objective, and thus appealing directly to the senses of the observer; whereas in the less obtrusive class of disorders the objective symptoms are fewer and subtler, while the subjective symptoms, upon which he has consequently chiefly to depend, require to be studied with exceptional skill and care. And in the second place, while the former class of diseases are admitted in large numbers into hospital (where, by the way, almost all original work in medicine is done), and can thus be studied at the bedside from day to day, and, if need be, from hour to hour, diseases of the latter class seldom find their way into the ward, and must be studied in the out-patient department, where facilities for careful observation are far fewer, and where, moreover, the large number of cases to be seen in a short time prevents a detailed study of each. The out-patient physician is further hampered in original research by having to give his chief attention to teaching, the duties of which are quite incompatible with that patient and laborious investigation which these less obtrusive forms of disease so especially demand. Now I would advance two propositions which, if sound, should lead to more attention being directed in future to these hitherto neglected fields: (1) All non-traumatic disease is gradual in onset; and (2) it is in its first phase purely functional.

1. That chronic disease begins insidiously is self-evident, but it is not so widely recognised that even acute disease is very generally gradual in its approach—that health rarely, if ever, passes abruptly into disease, unless as a result of accident. The very gradual onset of many diseases has been forcibly impressed upon my mind for a long time past, but it was not until I read Dr. H. Gawen Sutton's thoughtful lectures on pathology that I realised that in this respect acute disease largely falls under the same law as chronic disease. Few maladies are apparently more sudden in their onset than rheumatic fever, but as a matter of fact this affection never attacks a person in sound health; there is always a prodromal stage of enfeebled health. "Before the joints become affected and before there is any sign of local inflammation rheumatic fever is commonly ushered in by anæmia, by dyspeptic symptoms, by increasing weakness, by sweating at night, with the characteristic sour smell of the perspiration, and by a slight rise of temperature towards evening." (Sutton.) This antecedent phase of ill-health is probably not mere debility, but is a specific functional aberration—one, that is to say, definitely related to rheumatism, constituting, in fact, the initial phase of it, and one which is therefore conceivably capable of recognition. As with acute rheumatism so with acute nephritis—it never attacks a person who is in perfect health. Where there are opportunities of observing a patient just before the acute outbreak something wrong is always detected, though it may not be possible to state precisely *what*, and thus to warn the medical man of the particular danger that threatens. The same law holds good as regards acute pneumonia, and acute insanity is another disorder which is probably always heralded by definite (mental) symptomatology. Cerebral hæmorrhage, again, so sudden and often so unexpected, is in its usual form but the culmination of a long series of morbid changes which manifest themselves to the careful observer in a very definite way. Not infrequently, indeed, it is possible from observation of tortuous, tense temporals, mental disposition, and knowledge of family history to diagnose in quite young people who are casually met with, and who perhaps are doing their best by injudicious living to increase blood pressure and to hurry on the fatal catastrophe, the commencement of that long chain of morbid events which ends in apoplexy. Dr. Sutton even brings certain of the exanthemata under the same law of gradual onset. It has long been known that the resistance which the human organisation offers to parasites differs from time to time, rising and falling with bodily vigour; and it is certain that an antecedent enfeebled state of health shares in the causation of the exanthemata. Dr. Sutton insists upon this especially in regard to typhoid fever; he would seem to imply that the typhoid germ actually cannot flourish in a perfectly healthy individual and that the prevalence of the disease among armies on campaign is due as much to fatigue and privation as to the operation of the specific germ. One must not, however, push the principle of gradual onset too far in the case of the parasitic diseases, for there can be no doubt that certain pathogenic organisms may gain a hold even in the most healthy, resistance being due not so much to a high standard of health as to immunity gained by natural selection and perhaps by other means. It should be noted that the lowered state of vitality which may precede parasitic inoculation is not specific—not a prodromal stage like that which ushers in the disorders previously alluded to. There is therefore hope that from these antecedent phases one may learn to diagnose acute disease before its sudden outburst, just as the inhabitants of a volcanic district have learnt to foretell an eruption by certain well-known signs. And, if there is hope even with respect to these, how much greater hope is there that it will one day be possible to recognise the beginnings of chronic disease, to read the handwriting on the wall while there is yet time to render effective help? Yet it is precisely concerning the earliest phases of chronic disease that ignorance most prevails. Knowledge of a chronic disorder chiefly pertains to that period when it has obtrusively declared itself and our clinical conception of it is too apt to leave its earliest manifestations entirely unconsidered; one does not sufficiently try to detect the commencement of that gradual descent which, only after years it may be, causes the sufferer to seek medical advice. Of such a nature is locomotor ataxy, a disorder that is never diagnosed at its very beginning—nay, that is often not recognised until it has advanced to a stage when it is almost beyond the control of medicine. Yet for years before the definite diagnosis is made the patient may have been suffering from a series of symptoms which, rightly interpreted, would have revealed the real nature of the disease to his physician long before the development of those classical symptoms by which it is known, and also before it had passed beyond the pale of therapeutics. Of all phases of this or of any other chronic disease, that first phase of all, when the individual is hovering on the borderland between health and disease, is the most interesting, the most fascinating to the thoughtful physician, and at the same time the most hopeful. If there have existed opportunities of observing a case of locomotor ataxy for some years before it was recognised as such, it can again and again be traced to those initial phases when, all unconscious of the tragedy that had begun, the victim was going about his life's work, laboriously advancing, it may be, towards the goal of his ambition; we shall picture him as for years remaining stationary and struggling successfully against the unrecognised foe; and then, after definite manifestations of the disease, it will be remembered how he became less and less able to pursue his work, until finally he was compelled to drop out of the ranks altogether and await the end, henceforth a silent and helpless spectator. All this will be mentally rehearsed, but it is, I say, on the opening scenes of the tragedy that the mind will dwell longest. In the light of subsequent events many incidents of this period will become pregnant with interest, and it will appear strange

how so fell a process should have escaped discovery for so long. My own impression is that the beginning of most chronic diseases lies much further back than is generally thought—that many a chronic disorder that does not attain its full development till the age of fifty, or after, had begun its silent work in early adult life. I am inclined to think that such is often the case with non-syphilitic locomotor ataxy or granular kidney—nay, even with such a disorder as paralysis agitans.

2. Non-traumatic disease is in its first phases purely functional. "All disease at the outset is purely a functional disturbance, and if we can recognise it early enough we can often ward it off." (Sutton.) It is very necessary to attach a definite meaning to the term "functional" here. By *functional disease* I understand one in which there is functional aberration without any *discoverable* structural change to account for it. The qualifying word should be noted, for many diseases that are regarded as functional are dependent upon structural peculiarity that is undiscoverable. Dyspepsia occurring in a perfectly healthy individual as a result of severe mental shock is a functional disorder, pure and simple, but the functional aberrations occurring at the beginning of a case of locomotor ataxy which is purely hereditary—i.e., which is independent of mal-environment—is manifestly due to some structural defect, though such defect is undiscoverable, consisting, it may be, in some peculiarity in the arrangement of atoms in molecules, and of the relation of molecule to molecule and of cell to cell.[1] Such undiscoverable lesions are, however, so subtle that one may regard all disease as functional until the tissues have advanced to a stage of dissolution which is discoverable, up to which time the possibility of reversion to the normal is (often, at least) very great.

The fact that all non-traumatic diseases tend to begin insidiously and to be purely functional in their initial phases should ever be borne in mind. I know of nothing in medicine that is more important; it shows where progress lies and inspires us with hope for the future. And this is needed. The inability to cope with disease, such as it is met with in the wards, is sufficiently depressing: too often one has to satisfy oneself with the barren triumph of correct diagnosis. It is of importance to be able to descry the approach of disease from afar, so that physicians, like careful generals, may lay their plan of defence betimes and not be taken unawares. They must, in short, pay more attention than they have done hitherto to the minor manifestations of disease.

Devonshire-street, W.

ON CEREBRINE ALPHA AND MYELINE ALPHA IN THE TREATMENT OF CERTAIN NEUROSES.

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ATTEMPTS to remedy deficiencies in the secretion or nutrition of certain organs of the human body by the administration of analogous substances taken from animals are by no means of recent origin, as is frequently believed, but date back into prehistoric times. Dioscorides has been credited by historians with having been the first to recommend the use of ox-gall for the treatment of constipation; but it appears from the recently published "Papyrus Ebers," translated by Joachim into German, that he derived his knowledge on this subject from old Egyptian sources, for the papyrus just mentioned contains elaborate prescriptions for the use of ox-gall in various diseases. Sperma of animals was likewise used in antiquity, and extracts from the testicles, as well as from the brain, liver, spleen, and lungs of animals, are recommended in the "Tyrocinium Chymicum" of Johannes Beguinus (Amsterdam, 1669). Pepsine, on the other hand, was only discovered by Schwann in 1836, and was introduced into medical practice by Corvisart in 1854. The most remarkable step in this direction, however, was taken in 1889 by Dr. Brown-Séquard, with whose publications on the hypodermic injection of testicular liquid everyone may be supposed to be familiar. He was soon followed by others, who used injections of thyroid juice for the treatment of myxœdema, of pancreatic extract for diabetes, of cardine for cardiac debility and dyspnœa, of extract of supra-renal capsules for Addison's disease, of extract of kidneys for uræmia, and of nervine and cerebrine for diseases of the nervous system (Babes,[1] Paul,[2] Hammond,[3] and Dana[4]). Up to the present time, however, a solid foundation cannot be said to exist for any of these therapeutical procedures, with the one exception of the treatment of myxœdema with thyroid juice. It therefore appeared to me to be worth while to investigate any medicinal action which might be possessed by extracts of the brain and spinal cord, and I will in the following lines simply relate my personal experience in this matter, without entering into criticism of the opinions and practice of others.

In September, 1892, I communicated with Messrs. Brady and Martin, of Newcastle-on-Tyne, requesting them to prepare for me sterilised extracts from the brains as well as from the spinal cords of healthy young animals, and I am very much indebted to them for a considerable expenditure of time and trouble on their part in carrying out my wishes. They have prepared these extracts in the same way as their thyroid extract—that is, by mixing one part by weight of the animal tissues with one part of glycerine and one part of a 0·5 per cent. carbolic solution. A healthy rabbit is killed by the inhalation of chloroform. The spinal cord is then rapidly dissected out with sterilised instruments and under antiseptic precautions. To 3 grammes of spinal cord matter 3 c.c. of glycerine and 3 c.c. of the carbolic solution are then added, and the whole is intimately mixed and allowed to stand for a day. On pressing it off the product is found to measure 7·2 c.c. The brain is treated in the same manner: to 8·2 grammes of brain matter 8·2 c.c. of glycerine and 8·2 c.c. of the carbolic solution are added, the product measuring 20 c.c. I have termed the organic extracts thus obtained myeline alpha and cerebrine alpha—the alpha being added in order to distinguish the brain extract from the animal alkaloid "cerebrine" ($C_{69}H_{11}N_2$), which is obtained by treating the protagon of the brain matter with alkalies, or by boiling the fresh brain with baryta water, and then extracting the alkaloid with boiling alcohol from the precipitate; and to distinguish the spinal cord extract from "myeline," which is no chemical compound, but one of the constituents of the central nerve-fibre. The specific gravity of the cerebrine alpha is 1087 and that of the myeline alpha 1082. They both have an acid reaction, and contain organic matters in two forms—viz., first, matters in solution, and, secondly, matters in suspension, which latter cannot be filtered out undiluted. Messrs. Brady and Martin have found on analysis that the former contain small quantities of proteids, giving the xanthoproteid and Millon's reactions. They do not contain phosphoric acid either in combination with bases or with organic compounds. Among the matters in suspension are protagon ($C_{66}H_{11}N_2P_1$), lecithine ($C_{44}H_{90}NPO_9$), cerebrine ($C_{69}H_{11}N_2$), and proteids. The total quantity of phosphoric acid present is in excess of that required to combine with the bases. Although insoluble in water, the phosphorised bodies readily split up under the action of alkalies, yielding stearic acid, glycerophosphoric acid, and choline, and are then fairly soluble. Neurokeratine, nucleine, and spermine have been looked for, but not found. Neither preparation has shown perceptible change after having been kept for upwards of three months in stoppered bottles lying on its side in a cool place. Hypodermic injection appears to be necessary, as swallowing these extracts produces no perceptible physiological or therapeutical effects. The gastric juice seems to decompose them and to render them inert, as it does with other animal fluids, such as vaccine, snake-poison &c. In order to avoid irritation it is best not to inject into the cellular tissue, but into the substance of the muscles, preferably the glutei. After a number of trials I have found a good initial hypodermic dose of both extracts to be five minims. If after such a dose a good effect is perceptible, the same may be continued; but should there be no change the dose may be gradually

[1] The reader will find the meaning of the term "functional disease" discussed at considerable length in the Causation of Disease, by H. Campbell, M.D. London. 1889.

[1] Babes: Die Behandlung der genuinen Epilepsie &c. Deutsche Medicinische Wochenschrift, No. 30. 1892; No. 12, 1893.

[2] Constantin Paul: Expériences sur la Transfusion Nerveuse. Bulletin de l'Académie de Médecine, Février, 1892. Du Traitement de la Neurasthénie &c. Ibid., April, 1893.

[3] Hammond: On Certain Organic Extracts, their Preparation &c. New York Medical Journal, Jan. 28th, 1893.

[4] Dana: Modern Pathology and the Pathology of Nervous Diseases. Boston Medical and Surgical Journal, May 18th, 1893.

raised by one minim each time until twenty minims are given. As a rule I have used these injections on alternate days, but some patients have been eager to have them daily, and have made good progress when this was done. I have used cerebrine alpha where the symptoms pointed to the brain as the seat of the mischief and myeline alpha in spinal diseases, but I have occasionally reversed this, and I have been unable to discover any essential difference between the two extracts. The duration of the treatment has varied considerably. In some cases only three or four injections have been given with the best results; but in the majority I have continued the treatment for from four to six weeks; in a few, however, it has been much longer. A patient with locomotor ataxy, who is no longer under my care, continued the injections, on his own responsibility, for ten months after I last saw him; and another, with progressive muscular dystrophy, has had about a hundred injections under the care of his usual medical attendant. In both these cases benefit has been obtained, more especially in the former.

The physiological effects of these injections in persons of average health consist chiefly of feelings of increased nervous energy and buoyancy, and greater capacity for physical and intellectual exertion without much subsequent fatigue. In other respects, however, no particular changes have been noticed. There has been no increase or decrease of temperature, and the rate and quality of the pulse and the type of respiration have remained about the same. The coarse, muscular force as tested by the dynamometer, both before and at certain intervals after the injection, varied only to a trifling extent. The appetite appeared to be increased and the action of the bowels more free. The quantity of urea excreted in the twenty-four hours was in some instances increased, food and other conditions of life remaining about equal; sometimes, however, no definite change could be discovered. Some of the physiological effects described by Hammond,[5] and recently criticised by Stockwell,[6] are probably owing to the injection of the alcohol which is a constituent of Hammond's preparation.

The principal diseases in which I have used hypodermic injections of cerebrine alpha and myeline alpha are the different forms of neurasthenia; the chronic degenerations of the spinal cord, such as locomotor ataxy, spastic spinal paralysis, and progressive muscular dystrophy of spinal origin; and various forms of hemiplegia, paralysis agitans, and epilepsy. I have also used these extracts in a case of astasia-abasia, in one of grave hysteria, for the disabilities attending old age, and during convalescence from acute diseases. The general result at which I have arrived is that cerebrine alpha and myeline alpha are no specific remedies for disease of the nervous system. I have, indeed, found them to be useless in epilepsy, paralysis agitans, and tremor, as well as in the usual forms of hemiplegia. On the other hand, I am convinced that they constitute a nervine tonic of considerable efficacy in certain maladies and conditions mainly characterised by loss of nerve-power; and that through this property they will be found to be a valuable addition to our other and older nervine remedies, with which they may often be used in conjunction. In conditions which are habitually looked upon as purely functional good results may be obtained by the injections without any other active treatment, while in maladies where the organic structure of tissues is damaged they seem to act chiefly as adjuvants and intensifiers of other treatment. I have found in a number of such cases that much better and quicker progress was made from the time the injections were added to medicinal and electrical treatment than before; but where the latter was dispensed with, and the injections were used by themselves, the result was not so favourable. Of fourteen cases of neurasthenia six were successfully treated by injections alone, six others improved under combined treatment, and in two cases there was no change for the better. These latter, however, were on the borderland of insanity. In the six cases which were treated simply by injections the mental depression was more particularly benefited.

A patient, a man aged sixty years, who had been neurotic for many years, was under treatment when several grave misfortunes happened to him—viz., loss of a large sum of money and the serious illness of his wife and daughter. While formerly under similar circumstances he would have been completely prostrated, he was able to go on with his work, and although he keenly felt the distress caused by these events he never lost his self-control. Another patient, a man aged forty-two years, whose thoughts had for some time past been running on hardly anything but the various forms of committing suicide, the pros and cons of which he used to discuss with himself night and day, found after two injections that these thoughts did not come so readily to him, and he eventually became altogether free from them. A man aged seventy-six years, who had been neurotic almost all his life, and had suffered chiefly from gastrodynia, spasmodic asthma, and fits of depression, wrote to me about a week after the first injection: "You will hardly believe me when I tell you that within forty-eight hours after your operation I was quite another man, and have remained so ever since." Suggestion will no doubt by many be credited with such a result, but the patient who wrote these and other much more significant words, which I suppress, was a man of the most brilliant and highly trained intellect and the keenest analytical powers, which neither age nor infirmity had been able to blunt, and he had previously used numerous other modes of treatment which appeal far more to the imagination than such a simple thing as a hypodermic injection.

In eleven cases of locomotor ataxy the injections have greatly helped to improve the condition of ten. In these cases progress was very slow with other treatment, but when the injections were added a fresh impulse was given, which was plainly perceptible to both medical attendant and patient. Of course tabes, like phthisis, cannot be cured in the sense of actual restoration of decayed or destroyed structures to their normal condition; indeed, Professor Charcot wrote to me, only a few months before his death, with regard to some reputed cures of tabes in Paris: "Quand on guérira le tabes il fera chaud!" But in tabes, as in phthisis, such an improvement in functional activity and relief from suffering may result from appropriate treatment that the patients, although remaining handicapped, are able to do good work and to enjoy life. A man had contracted syphilis nearly twenty years before the first symptoms of tabes appeared, and still had psoriasis on his leg when he first consulted me. I treated him with mercury, iodide of potassium and electricity, under the influence of which he improved; but he lost nearly all the benefit he had gained owing to a severe attack of pneumonia following influenza which he had about four months later. As after recovery from this he remained in a very low state I thought it undesirable for him to spend the winter in England and sent him abroad; and I did not see him again for some nine months, when he appeared to be in very much the same condition as he had been when I first saw him. There were the Argyll-Robertson pupil, Romberg's and Westphal's symptoms, ataxic gait, difficulty in urinating, loss of sexual power, and many other signs of the disease. I now added injections of myeline alpha to the previous treatment, and a rapid improvement took place. After half a dozen injections he was able to walk very much better, standing and turning round were easier, and he felt himself becoming stronger day by day. After about six weeks' treatment he felt well enough to return to work, and married; he has quite lately informed me of the birth of a child. The other cases of tabes which I have thus treated have not improved so quickly or so thoroughly, but six have benefited considerably, three were slightly better, and one remained very much the same. In none of them, however, did the knee-jerk return, nor was there any change in the Argyll-Robertson pupil.

Four cases of spastic spinal paralysis have been treated with injections of myeline alpha in addition to other treatment, and three have greatly improved. The exaggerated tendon reflexes which are seen in this malady showed considerable diminution after a time, and ankle clonus had disappeared; while the walking power, and in two cases the action of the bladder, which had been weakened, was much ameliorated. In one of these cases other treatment was discontinued at a certain stage, and only injections were made, with the result that the patient continued to improve in a very satisfactory manner. Three cases of progressive muscular dystrophy in adults have been similarly treated, with decided benefit. One of these patients was sixty-seven years of age. A good result was also obtained in a case of astasia-abasia, which occurred in a single woman aged thirty-five years, and in a very peculiar case, in which at first a suspicion of commencing general paralysis was entertained, but which the result of the treatment showed to have been rather one of grave hysteria.

[5] Ibid.

[6] Stockwell: Study of the Organic Extracts, &c., Medical News, Philadelphia, Aug. 26th, 1893.

This patient was a widow aged forty-three years and the mother of five children. She had been out of health ever since her husband's death five years ago. More especially during the three months before I saw her there had been a very striking change in her manner; she had shown difficulty in collecting her thoughts and in "pulling herself together," spent much time over trifles, showed a mania for writing letters and unnecessarily cleaning ornaments, stood for hours in her bedroom with open door and windows doing nothing, refused to go downstairs, could not settle herself for sleep, and appeared to be indifferent to her children, of whom she had formerly been extremely fond, and callous to her own appearance. All the deep reflexes were exaggerated in the upper as well as in the lower extremities; she dragged her feet in walking, shuffling them along the ground, and she was awkward in getting into a carriage and in going upstairs or uphill. She had also suffered from incontinence of urine and matutinal vomiting. Her father and two uncles had died from paralysis. She was treated chiefly with cerebrine alpha injections and completely recovered her mental as well as physical health in about three weeks' time.

Cerebrine alpha injections without other treatment have proved to be useful in various disabilities incident to old age. I have noticed such a result more particularly with regard to the power of walking. Persons who have to their regret been obliged to give up walking exercise altogether have found themselves, after a comparatively short treatment, enabled to resume it to an extent which they had not believed to be possible. A man aged seventy years, who had been very fond of walking, had been of late years obliged to give it up as it easily induced exhaustion, and he had to walk so slowly that it was a source of annoyance to him. His walk was, in fact, more like a crawl, although he had no spinal disease. After three weeks' treatment he was able to walk three miles at a time at a good pace and without subsequent excessive fatigue, and hot weather, which formerly seemed almost to paralyse his walking powers, seemed now hardly to affect him. The appetite may also be increased in a remarkable manner; those who have not been hungry for years begin to relish food again. At the same time there may be less desire felt for alcoholic stimulants or medicinal tonics such as quinine, &c., which have been habitually taken before. The action of the bowels also becomes easier. In one of my cases there was such atony of the bowel that two consecutive enemas were required for effecting relief, for the first injection appeared to bring the fæces near the lower end of the rectum, but did not cause an evacuation. After a few injections of cerebrine alpha no further enemas were required. Another patient had taken cascara sagrada every night for several years, as if he omitted the daily dose constipation set in and was speedily followed by symptoms of congestion of the liver and gout. After some cerebrine alpha injections he found that the cascara sagrada, which had generally produced one good solid motion, caused several loose ones in the morning, and he then gave it up, at first tentatively, but he soon found any further recourse to it to be unnecessary. In another case obesity was diminished, apparently in consequence of improved digestion and defecation.

The expulsive power of the bladder, which is so often weakened in advanced age, may be much strengthened by these injections, and so is the sexual force. In some cases, where the density of the urine had been very low, showing renal inadequacy and diminished elimination of urea, the amount eliminated gradually rose until it approached the average (in one case from 114 grains to 212 grains). I have, however, also seen cases with neutral urine and great excess of phosphates where this condition persisted after a number of injections, while other symptoms of impaired nervous health disappeared.

During or after convalescence from acute diseases, where the patient's health remains broken or where definite nervous sequelæ have shown themselves, the tonic effects of cerebrine alpha injections may be utilised. In a man aged thirty-six years, who had had a third attack of influenza in March last, great depression remained after a sufficiently long change of air and scene. He felt himself to be in a kind of dreamland, was apt to lose himself, and had odd and distressing sensations in the head. He was totally unfit for resuming his duties, and he had lost all taste for work as well as for the athletic games which he had habitually played. Medicinal tonics did not seem to affect his condition. After three injections his health was completely restored.

Like many other tonics, cerebrine alpha and myeline alpha may disagree with the system. In a case of paralysis agitans the patient soon after an injection felt fulness and distension in the head, with itching and irritation of the skin all over the limbs, which lasted for about two hours, when it gradually passed off. In some cases there has been local irritation round the puncture, and in one case a considerable swelling occurred, which caused a good deal of pain and discomfort, and only passed off after five or six weeks. In that case, however, the patient had injected himself, and the accident might not have happened if the injection had been made by a medical man *secundum artem*. As a rule, however, neither pain nor any other discomfort is experienced subsequently to the injection. It is, of course, indispensable that the syringe used should be in a perfectly aseptic condition, and for obtaining this it is useful, in addition to the usual cleansing and carbolising, to pass the needle of the instrument a few times through the flame of a spirit lamp before using it. I am not in a position to affirm that the results which I have thus far obtained with this mode of treatment will be permanent, as the time which has elapsed since I began using it is far too short for that. I consider it to be quite probable that in some of the cases treated there will be relapses, to which nervous affections of all kinds are so very prone. The immediate effects of it, however, must be looked upon as satisfactory in a number of cases, more especially if we consider that many in which I have used it were of a very obstinate description and had resisted a great variety of other energetic therapeutical procedures.

In conclusion I must say a few words about what I consider to be the mode of action of these extracts when hypodermically administered. Many persons will agree with Massolongo[7] and Guelpin[8] in thinking that their effects are simply owing to suggestion and to the expectation of relief which accompanies the use of the remedy. I do not share this opinion, as most of the patients I have treated with them had already gone through a great variety of other treatment, and appeared to be quite inaccessible to the influence of suggestion, being, indeed, rather sceptical as to any benefit likely to result from them. In several cases I have said little or nothing to the patients about the nature of the liquid injected in order to exclude the influence of suggestion as much as possible. From what I have observed I have come to the conclusion that the action of extracts is twofold. In the first instance they may be looked upon as a highly specialised pabulum of nervous matter, in consequence of their containing protagon, cerebrine, and lecithine; and, in the second place, they appear to act as antitoxines, as the phosphorised bodies split up, under the influence of the alkalinity of the blood, into glycero-phosphoric acid and choline, which have the power of stimulating intra-cellular oxidation and the elimination of leucomaines. These points I propose to consider more fully in a subsequent paper.

Harley-street, W.

THE ADMINISTRATION OF LARGE DOSES OF QUININE DURING PREGNANCY.

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IN a country so prolific of malarial diseases as India pregnant women frequently require the administration of that most efficacious drug, quinine, in the treatment of such affections. There has been a prejudice against the use of large doses from an early date in its therapeutic history, owing to fear that it might either produce miscarriage or cause premature labour, and many physicians avoid giving it altogether, much to the patients' detriment. In the light of experience I was surprised to hear how deep-rooted this prejudice is amongst Indian medical men, as I am convinced that miscarriage is much more likely to occur from the effects of the paludal poison and the recurrence of high temperature, and that by the timely administration of quinine in large doses the patient might be cured of her fever and miscarriage even prevented. All physicians who

[7] Massolongo: Riforma Medica, February, 1893.
[8] Guelpin: Injections de Liquides Organiques. Progrès Médical, Mars, 1893.

have to treat tropical diseases are agreed that only large doses of quinine are of use in certain classes of malarial fevers. I believe that the discredit of the drug in such cases has been due to insufficient observation, and that in many of the cases of fever in which miscarriage has followed its administration this result has been brought about by allowing the fever to run its course unchecked for too long a period before the quinine was given. In other cases there may have been some coincident liver or digestive disorder which has been exaggerated by the quinine, and so reflex irritation has extended to the uterus; or there may be an idiosyncrasy in the case of quinine as well as of other drugs. In all the text-books on midwifery quinine is recommended as an ecbolic, and in works on therapeutics it is considered to be a direct emmenagogue; but I am inclined to think that it has not much initial oxytocic effect on the uterus itself, and that its influence during labour is due to a stimulation of the flagging nervous powers, while its emmenagogue effects are probably due to its action on the vascular apparatus through the nervous system also. The subject is so important and interesting that accurately observed cases and undoubted instances are sure to be widely useful, and I therefore submit the following case.

A young woman aged twenty years was admitted into hospital for fever, from which she had been suffering for a month. She was in her eighth month of pregnancy and was a primipara. Her illness had commenced one month previously with rigors, followed by fever and severe headache. She had never suffered from fever of a similar kind before. There were no unusual symptoms connected with the pregnancy—no vomiting or salivation &c. Her habits were temperate. She was fairly well nourished; the mucous membranes were anæmic; the tongue was pale and flabby, and coated with a creamy fur; the conjunctivæ were suffused and pigmented yellow; and the pulse was full and frequent. The bowels were at first constipated, but afterwards became loose, giving rise to three or four somewhat watery motions daily. She felt weak and exhausted. The feet and ankles were œdematous, the œdema extending upwards to about the middle of the tibia on each side, and it had only very recently appeared. The respiratory system was normal, and so was the circulatory system, with the exception of a pulmonary systolic hæmic bruit over the left pulmonary area. The liver and spleen were not enlarged. The urine was acid in reaction, of sp. gr. 1006, and contained no albumen. The case was diagnosed as malarious intermittent fever complicating pregnancy. On Sept. 26th the patient was treated with simple diaphoretics during the height of the fever, and twenty grains of sulphate of quinine were ordered when the temperature was 101°F. On the 27th the periodic rise of temperature was somewhat less and was deferred to a later hour in the day. There were no uterine pains or discomfort, and the patient said that she felt much better than she had done for the previous month. The treatment was repeated. On the 28th there was no rise of temperature. She was given a mixture of twenty minims of liquor sodæ chlorinatæ, five minims of liquor arsenicalis, and one ounce of peppermint water, to be taken three times a day. On Oct. 1st the patient was discharged at her own earnest request, apparently well except for the anæmia, for which she was treated.

The case shows that a large dose of quinine can be given in pregnancy with signal advantage in malarious fever, and it should be noted that the drug was not fenced with opium or other sedative. The fever yielded at once to the quinine, and this is often the case when intermittent fevers have continued without treatment for a long time, the malarial poison being apparently attenuated.

Bombay.

CASE OF URÆMIA FOLLOWING SCARLET FEVER; RECOVERY.

BY T. J. TONKIN, L.R.C.P. & L.R.C.S. EDIN., L.M., L.F.P.S. GLASG.

THE patient, a strong, well-built lad of sixteen years of age, came under my observation on May 3rd, 1893, and was found to be suffering from scarlet fever. The rash was well developed; the temperature—taken in the mouth—did not exceed at any time 103·5°F., and under regular treatment the disease ran an ordinary course, the eruption fading on the 7th, and his temperature reaching the normal on the same day. Desquamation was complete before the end of the month. Now another and a more serious phase of the disorder developed. Soon after the commencement of desquamation the kidney complications presented themselves in more than usual force. Their onset was marked by suppression of the urine—total for two days, but then it gradually yielded—accompanied by a hard pulse and a slight elevation of temperature; and when at last the secretion flowed more freely it was found on analysis and microscopical examination to contain blood, casts, and a large amount of albumen. However, under the exhibition of acetate of potassium and digitalis, preceded by a brisk purge, together with hot applications to the loins, the condition of the kidneys and their secretion so much improved, and with them the patient's health, that by June 2nd he was allowed to take open-air exercise, and the perchloride of iron was prescribed. For the space of eight days at this juncture he was not under observation. On June 10th, however, at 4 P.M., medical aid was again requested, and on arrival it was found that the boy had just recovered from a convulsion which had been preceded during the morning by headache, unsteadiness of gait, and some intolerance of light. He was sensible and inclined to make a jest of his condition; subsequently, however, he denied all remembrance of what had passed. It being suspected that this fit was the first of a series, the boy was at once removed to bed, and on it being ascertained that the amount of urine passed during the previous twenty-four hours had again been scanty, hot mustard-and-linseed poultices were applied to the loins and 60 gr. of jaborandi were given. But before the latter had time to act the right hand and facial muscles of the patient began to twitch, and almost at once he passed into a second complete convulsive condition, the interval between the two fits being thirty minutes.

The description of this attack will serve for all the others. As far as could be seen, all the muscular groups were involved in the epileptiform movements, the violence of which was so great as to necessitate restraint; the patient foamed at the mouth, the head and neck became congested, and the tongue was bitten. Unfortunately, neither the exact length of time they lasted nor the variations in temperature during the attacks were noted. The convulsion over, the boy sank into a comatose condition, his face being pale and the eyes half closed; the pupils were dilated and reacted to light; the pulse was at first full, but afterwards hardened; the breathing was not markedly stertorous; the temperature was slightly subnormal, and the extremities were cold. This state of things lasted for about twenty-five minutes, during which time hot-water bottles were applied to the feet, and then, after a short period of restless and purposeless movement, he passed into a third convulsion. For the next two hours the fits continued to succeed one another (one every thirty minutes), some differing slightly in degree from others, but maintaining, as a rule, a uniform character—severe, general, and protracted. The only difference observed was that the intervals during which the patient was comatose in the earlier stages of the series were now occupied by delirium. No amelioration being observed in his condition, it was decided, after the cessation of the seventh fit, to make a further attempt at treatment. His loins and lower limbs were enveloped in a sheet wrung out of boiling water and applied as hot as was judged possible short of scalding, and, in spite of violent opposition on his part, with the help of two men, a wooden gag, and a padded bottle, he was enabled to swallow a draught containing sixty grains of hydrate of chloral and forty grains of bromide of ammonium. The hot pack had the beneficial effect of producing free diuresis, but the convulsions still continued with unabated violence and maintained their regularity with regard to time—one every thirty minutes. In the interval that followed the fifteenth fit the bromide and chloral draught was repeated under the same difficult conditions as previously, but without any immediate effect, and on the patient completing his twentieth convulsion venesection was decided upon and immediately performed, fifteen ounces of blood being abstracted from the right median basilic vein. The blood was dark-coloured and flowed freely. The patient had two more fits before any improvement was noted, and then the attacks began to decrease in severity, and after he had had five more (making a total of twenty-eight) they ceased. The decrease in violence was by no means so marked as might have been expected, for the last fit, which, it may be remarked, was preceded by an interval of only twenty minutes, was by no means a slight one. The termination of the series might be characterised as abrupt. The patient now, after a brief

interval of slightly stertorous breathing, settled down into what resembled a heavy natural sleep, which lasted for forty-six hours, and then, gradually awaking after a short period of mental confusion, entirely regained his senses. He complained of thirst and within two hours of his return to consciousness passed urine and a large dark and solid motion. His appetite and strength steadily improved; under diuretic and tonic treatment and diet he was able to leave his bed in a week and his room two days afterwards, and on reaching the open air rapidly recovered.

The points of interest in this case seem to be the number and regularity of the fits (twenty-eight in fourteen hours) and the recovery of the patient. A specimen of the urine passed on the morning of the day that the convulsions set in was, unfortunately, not available, but an examination of the first specimen passed after his recovery showed no great deviation from the normal. The odour of the patient's breath was distinctly ammoniacal, and his skin was irritable, as evidenced by his constant scratching when his hands were not held; but there was no vomiting or diarrhœa, and no involuntary discharge of fæces during the attacks. The present condition of the patient is highly satisfactory—the functions are normal, the urine is free from albumen, and he is capable of doing twelve hours' field work a day.

Welford, Rugby.

TWO CASES OF SUDDEN DEATH FROM HÆMORRHAGE INTO THE PERICARDIUM.

BY JAMES W. FRASER, M.D., C.M. EDIN., M.R.C.S. ENG.

IN neither of these two cases was the subject seen during life, but only for the purpose of post-mortem examination under an order from the coroner. The occurrence of two examples of a somewhat rare lesion following one another so closely was a curious coincidence.

CASE 1.—In this case the witnesses at the inquest stated that the deceased had been employed at a large shipbuilding establishment for many years, and that two years previously, in consequence of an injury to the head, the scar of which was seen at the necropsy, he was given the lighter employment of watchman. He continued at this work until the day of his death, which occurred on Oct. 23rd, 1893. After leaving work at 5 P.M., and while crossing a raised bridge, one of the witnesses, a fellow workman, saw him stagger, caught him, laid him down and supported his head until he died; death occurred, according to the witness's estimate, in about seven minutes. The post-mortem examination was made at 1.45 P.M. on the 24th. An external inspection showed the deceased to have been a well-nourished man looking much older than his stated age (forty-three years); he had a few slight scars of injuries to the skin in various parts of the body. Rigor mortis was well marked and hypostatic congestion was very deep. On opening the chest the lungs did not collapse; they were slightly emphysematous at the edges and there were pleural adhesions, especially on the right side; the blood was fluid. The pericardium appeared to be distended, and on opening it, blood spouted out; over twenty ounces were caught and measured, and the whole quantity in the pericardium might be estimated at twenty-five ounces; it contained a few clots. No tear could be detected while the heart remained *in situ*, but on removal, careful examination discovered a minute opening, just admitting a probe, situated about the centre of the anterior wall of the left ventricle; this opening led into a cavity in the substance of the wall, which communicated with the ventricular cavity, and from which a long sinus led towards the apex of the heart and there also opened into the ventricle. The other cavities, the valves, and the coronary vessels were fairly healthy, but the ascending and transverse arch of the aorta contained large calcified atheromatous patches. All the other organs examined were healthy except the lungs, which showed some bronchitis as well as the emphysema.

CASE 2.—In this instance the deceased was second hand on board a steam trawler and was stated by the skipper to have been quite well until 1.30 A.M. on Oct. 25th, when the vessel was on the Dogger Bank, ninety miles from the Humber. The trawl net had been hauled on board and the deceased was getting it ready to be shot again, having assisted in getting it in, when suddenly he called out "Oh, skipper," and fell dead, apparently instantaneously. The trawler was at once headed for Hull, and on arrival there the body was landed. The post-mortem examination was made at 4.15 P.M. on the 26th. The body was found to be very well nourished and muscular; there was deep cyanosis of the face and shoulders and hypostatic congestion of the back. Rigor mortis was not very strongly marked; some sanious fluid had run from the mouth. A scar on the penis showed the site of an old chancre. On opening the chest the lungs did not collapse, though there were few adhesions; the blood was fluid. The pericardium seemed to be distended; when opened it was found to contain at least fifteen ounces of partly clotted blood, the clots being much larger and firmer than in Case 1. Before removal there was seen to be a tear at the apex of a small swelling anterior to the root of the aorta. On removing the heart the smaller coronary vessels were found to be atheromatous, and on opening the left ventricle and aorta a small aneurysm about the size of a hazel nut was seen to open from the sinus of Valsalva above the anterior semilunar valve. The cavities of the heart and the valves were apparently healthy, and no advanced atheroma was found in the aorta, though there were one or two early patches. The other organs examined were healthy. This case is an example of aneurysmal dilatation of the most unsupported sinus of Valsalva and of its consequent early rupture.

Remarks.—On microscopic examination of the muscular substance of the ventricle in the first case it was found to be generally affected with pigmentary degeneration, which was in parts so far advanced that the fibres in transverse section resembled thin-walled tubes filled with the golden yellow granules of the pigment, and in longitudinal section were seen to be breaking up into their constituent cells with their characteristic serrated extremities. Near the rupture, however, the interspaces between the muscular fibres were filled with proliferating cells, and in many places the fibres were swollen or broken down into granular débris, and their transverse striæ were quite obliterated. In the cavity and rupture there were found some detached (pus) cells, but the most of these had of course been carried away by the rush of blood, which had further infiltrated between the muscular fibres in some places and especially between any subpericardial fat cells. On staining by Gram's method some doubtful micrococci were found among the proliferating cells. The sequence of events in this case appears to have been pigmentary degeneration of the heart of a man, older than his years, followed by a localised myocarditis, which caused a breaking down of the ventricular wall into a small abscess; the slight exertion of going up the slope of the bridge was enough to rupture the walls of the abscess cavity, weakened both by degeneration and inflammation. This, then, is an example of the rarest variety of rupture of the heart. In 100 cases quoted by Quain[1] the left ventricle was the site of rupture in 76, and in 43 of these its anterior wall, but in only 1 of them is an abscess stated to have been the cause. In both of these cases it may be noticed that the post-mortem appearances external to the pericardium were those of asphyxia. The distended lungs not collapsing on opening the chest, the liquidity of the blood, and the consequent hypostatic congestion, seem to show that death does not result so much from loss of blood into the pericardium as from the pressure that the effused blood exerts on the pulmonary vessels and perhaps on the bronchi.

Spring Bank, Hull.

A CASE OF DISEASE AFFECTING THE CERVICAL AND LUMBAR VERTEBRÆ.

BY ANDREW DUNLOP, M.D EDIN. &c.,
CONSULTING PHYSICIAN TO THE JERSEY GENERAL DISPENSARY

A WOMAN aged about fifty-eight years, who had spent most of her life in India and Burmah, came under my care in the summer of 1890 on account of sciatica on the left side. Though never very strong and though she had suffered a great deal from dyspepsia for many years, she had been seldom seriously ill. When about twenty years of age she had what was called "congestion of the lungs," later on in life she had a severe

[1] Vide Dictionary: Article, Rupture of Heart.

attack of cholera, and about 1884 she suffered from glaucoma, for which iridectomy was performed. Both her parents died from phthisis, and her brothers and sisters died in infancy. The sciatica did not seem to be much influenced by treatment, but before the beginning of the autumn the pain had considerably diminished. Soon afterwards the right side became affected, and the pain there, and in a smaller degree that on the left side, continued until she left the island for London in October or November. In London she became an inmate of a private hospital, and while there, in addition to the sciatica, she began to complain of pain in the lower part of the back, of difficulty in defecation and micturition, with irritability of the bladder, and she gradually lost flesh and strength. Towards the spring of 1891 her attendants thought that they could detect a small tumour in the left lumbar or inguinal region, and the existence of malignant disease was suspected.

Early in the summer of that year she returned to Jersey, and I saw her immediately after her arrival. She looked thin and worn and complained of pain, frequently severe, in the left hip, and of girdle pain round the body at the level of the upper border of the iliac bones. There were almost constant difficulty of defecation and frequent attacks of irritability of the bladder, with difficult and painful micturition. The left buttock was enlarged by puffy swelling, and the ischium seemed to be thickened and enlarged. No abdominal tumour could be detected. She was very feeble, and owing to weakness and pain could hardly move out of bed. About this time, or shortly afterwards, a soft tumour developed on the right side of the thorax, over the third and fourth costal cartilages. The skin over it was not altered in colour, it was hardly, if at all, painful, and to the touch it gave the impression that it contained a viscid fluid. Soon after her return she began to improve, and the swelling of the left buttock diminished; the pain there and round the abdomen decreased, she began to gain strength, and before long she was able to get up and move about a little. The bowel and bladder troubles, however, still continued. During the autumn and winter there was little change, except that a second fluctuating tumour appeared on the right side of the chest, not far from the first, and soon afterwards a third developed on the left side over the first and second ribs and costal cartilages. This last swelling rapidly attained a length of about five or six inches; it was about two inches wide, and rose up about an inch and a half above the surface. During the summer of 1892 she was still better and stronger, and was able to go out every day in a Bath chair, but she still suffered from the girdle pains, from occasional pain down one or other sciatic nerve, from pain in the lower part of the back, from difficulty of defecation, and from frequent attacks of bladder trouble. About Christmas she began to suffer from pain and stiffness at the back of the neck, with tenderness over the upper cervical vertebræ, and there were occasional feverish attacks, sometimes lasting for a day or two and sometimes only showing themselves by a rise of temperature in the evening. In the beginning of 1893 the pain and stiffness in the back of the neck continued to increase, the pain frequently extending up over the head, and there was often a creaking sensation when the head was rotated. A feeling of tingling running down the arms was also often complained of. At the beginning of May the temperature suddenly rose to about 101°F; there was severe pain in the head and the neck was very stiff, the head being turned a little to the right; there was difficulty in articulation and in moving the lips and jaw; there was slight loss of power in the left arm and hand, and the patient was delirious. In a day or two she was in a partly unconscious state, the breathing being heavy, the neck rigid, and the pulse rapid and weak; the temperature did not rise above 102°. This condition lasted for about a fortnight, and then, contrary to all expectation, the patient began to improve. The stupor lessened, the temperature fell, she began to talk indistinctly, and seemed sometimes to recognise those round her. After this amendment she improved very slowly until the middle of July. Now and then she was fairly rational, but she usually seemed to be living in a dream, in which she drove out, paid visits, and had all kinds of extraordinary and disagreeable experiences and delusions. During this time she would often fall into a state of stupor lasting for hours, and her articulation continued to be indistinct owing to want of power in moving the lips and probably the tongue. Sometimes, also, there was some difficulty in swallowing; occasionally, too, there were attacks of violent delirium. She never made any complaint of pain, but her hands were often carried up to her head as if she were suffering there, and her brow was frequently contracted. Towards the latter half of July she suddenly began to improve greatly, and by the end of the month she had completely recovered her mental powers, and there was never any stupor. She was much emaciated, and according to the nurse she had frequent feverish attacks in the evening. Pain in the head and neck was not much complained of, though the neck was very stiff and moving the head was difficult and painful. During the month of August the pain in the head and neck returned, and the girdle pain and the pain in the back were again complained of; the bowels gave less trouble, but attacks of painful bladder trouble frequently occurred. At the beginning of September some swelling was observed in the muscles at the back of the neck, close to the skull, and the second cervical vertebra seemed to be enlarged; an elastic fluctuating tumour also formed on the back of the left hand, over the first and second metacarpal bones. At the end of the month a band of swelling was noticed at the back of the right side of the neck, passing from the spine close up to the angle of the jaw, and soon afterwards the swelling on the left side began to increase. There was less rigidity of the neck, but the creaking noise on movement was more and more a subject of complaint. For the next month there was little change, except that the lower of the two swellings on the right side of the chest disappeared, and that she began to suffer a good deal from pain in the right hip. The evening rise of temperature seemed also to be more frequent and more marked. On Oct. 31st the end came without warning. At about 8 A.M. she suddenly lost consciousness, and death occurred in a few minutes.

A post-mortem examination, in which I was kindly assisted by my friend Mr. Hind, was made twenty-five hours after death. When the head was opened the dura mater was found to be adhering to the pia mater at one or two points near the vertex. The superficial veins were much distended. Over the convexity the pia mater had a milky appearance, and on its outer surface there were many patches of firm lymph and red markings. This membrane was not adherent to the brain below. At the base of the brain the surface of the cerebellum and of the pons was covered with tough lymph, which also extended forwards towards the optic commissure. The meninges of the upper part of the cord, (the only part examined) were much reddened. On dissecting down upon the cervical vertebræ from behind a considerable quantity of pus escaped from both sides of the spinal column. The second cervical vertebra was carious, the articulating processes being much eroded, and the odontoid process was bare and rough. The atlas was also affected, though in a less degree, while the third vertebra seemed to be free from disease. The anterior part of the body of the second lumbar vertebra was eroded by caries, and the sheath of the psoas and iliacus on the right side contained about half a pint of pus. The swelling on the left side of the thorax contained sero-pus, and that on the right side pure pus. The bladder was distended, but otherwise healthy. The intestines were normal. The other parts of the body were not examined.

Remarks.—The symptoms during the earlier part of this case were obscure and gave rise to much doubt as to its nature. It was soon apparent to me, however, that there was most probably disease of the bones of the lower part of the spinal column. This seemed to be indicated by the double sciatica, the girdle pain, and the bowel and bladder troubles. This idea was naturally confirmed by the occurrence of disease in the cervical vertebræ, but what the precise nature of the disease could be I was at a loss to imagine, and I must say that the results of the post-mortem examination did not clear up all my difficulties. It appears to be pretty evident that the affection of the vertebræ was only part of a constitutional disease, showing itself also in the swellings on the chest and on the back of the left hand, and which had caused the enlargement of the left buttock and the temporary thickening of the ischium. The great and slowly progressive emaciation seemed also to point in the same direction. I remember once before seeing similar swellings on the chest of a middle-aged patient, a man who was suffering from phthisis and strumous disease of the testicle. I am at present disposed to regard the case as having been one of strumous disease, though the patient was in late middle life. The recovery from the meningitis—the inflammation which had spread up to the base of the brain and over the convexity from the diseased cervical vertebræ—was remarkable and unexpected. I now regret that a more thorough examination of the thoracic and abdominal organs was not made, but we had only a limited amount of time at our disposal.

St. Heller's, Jersey

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF ROTATORY DISLOCATION BETWEEN THE ATLAS AND AXIS; REDUCTION.

BY CYRUS LEGG, L.R.C.P. LOND., M.R.C.S. ENG.

A LAD was recently brought to me one evening with his head rigidly twisted to the left side and a history of having a few hours before tumbled down in the playground at school over another boy, so that, turning over on to his back as he fell, he caught the back of his head in an angle formed between the trunk of a tree and the ground. On rising the head remained twisted to the left side, and he was quite unable to rotate it at all to the other side, all attempts to do so causing him great pain. On examining him more minutely I observed that the chin was raised somewhat, so that he was unable to see his toes or to flex the head at all, while the sterno-mastoid and trapezius muscles on the right side were quite tense. Pressure over the lower cervical spinous processes caused no pain and disclosed no irregularity, but when applied upon the transverse processes of the atlas, especially on the right side, it caused great pain; whilst the body of the bone was evidently rotated in the same direction as the head. He was unable to touch the back of the head with either hand, while the attempt with the right hand caused him pain in the upper part of the neck on the same side. All attempts to twist the head to the right side with a moderate amount of extension were futile and caused such acute pain as to make him cry. I diagnosed, therefore, a probable rotatory dislocation or hyper-rotation of the atlas upon the axis. I hence made several efforts to reduce the dislocation by applying firm extension combined with rotation, one hand being placed under the chin and the other under the occipital bone, but without avail. I tried at first with the boy standing and half lifting him off the ground, but as this was useless I tried again after making him recline over the back of a sofa, but still unavailingly, until I obtained assistance in order to lay firm hold of his shoulders, when, with a vigorous pull and half a jerk the dislocation became reduced with a click, and I had the satisfaction of turning his head to the other side, while he at the same time experienced instant relief. I then tied a bandage round the right shoulder-joint and passed it over the head a few times in order to retain it to the right side for a time so that whatever damage had been done to ligaments, &c., might be given an opportunity of being properly repaired. As dislocations of the cervical vertebræ without a fatal issue are very rare I think the case is worth recording, and the boy is to be congratulated on his very narrow escape, for it is impossible to say what fraction of a millimetre may have determined an inevitably and instantaneously fatal compression of the cord in that region.

Wargrave, Berks.

A CASE OF TRAUMATIC TETANUS; RECOVERY.

BY H. HOLDRICH FISHER, M.D., L.R.C.P. LOND., M.R.C.S. ENG.

A BRICKMAKER thirty years of age whose previous history had been good, accidentally crushed the middle finger-nail in the brickfield on Aug. 20th between two heavy pieces of old iron. The finger and nail were bruised and painful afterwards, the pain extending some way up the arm, but he managed to continue at his work. On Sept. 8th there was inflammation around the nail, and pus was discharged, which gave considerable relief to his hand and arm. The next day he was worse and suffering from pain in the chest, stiffness in the jaws, and feverishness. This condition continued till the 13th, when he was obliged to give up his work. On the 14th he first came under my observation. There were found to be trismus, some fever, and the matrix of the nail was unhealthy-looking and discharging. The man had a distressed appearance and was evidently ill. I at once sent him home to bed. The following morning, under cocaine, the finger-nail (then nearly loose) was removed, as well as the overhanging skin above the matrix of the nail, the whole being carefully cleaned and kept dressed with a solution of corrosive sublimate. There was a great deal of stiffness in the muscles of the jaw, abdominal walls, and back. He was in a state of opisthotonos with frequent muscular spasms and perspired very freely. The temperature was 100·8° F., and the pulse was 120 (fair). He was able to swallow. I ordered a free supply of liquid food and some wine and a mixture containing five minims of chloroform, five minims of tincture of belladonna, and ten grains of bromide of potassium in mucilage, to be taken every four hours. On the 16th the spasmodic attacks were frequent, but not so severe as to interfere with respiration. The temperature was 100°. He felt pain in the abdominal muscles and suffered from sleeplessness. I ordered a belladonna liniment to be applied to the spine and an ice-bag to the neck, and half a drachm of liquor opii sedativus at bedtime each night. On the 18th the notes state: "He now gets some sleep." The belladonna locally applied had relieved the pain in the spine. The temperature ranged from 100° to 103°. On the 20th the arms and legs were attacked with stiffness and spasms. The patient's strength was fairly well kept up. On the 22nd the muscular contraction and spasms were gradually less, but a belladonna rash (scarlatiniform in character, with numerous white and yellow vesicular points) had developed. He complained of a feeling of dryness in the mouth. The medicine was changed to six minims of tincture of digitalis, twenty minims of spirit of sulphuric ether, and ten minims of chloroform, to be given every four hours. The digitalis was added as the pulse and heart were both becoming weaker. On the 24th he bit his tongue several times, especially on awaking. He said that he was more comfortable than he had been; the muscles were generally tense, but he could slightly open his mouth; the belladonna rash was fading. I ordered fifteen grains of bromide of potassium to be added to each dose of medicine. On the 26th the symptoms were generally subsiding; the opisthotonos was nearly gone; the spasm was mostly in the shoulders and in the region of the diaphragm. On Oct. 4th he was able to be dressed and to sit up in bed. From this date he continued to improve, the stiffness disappearing from the jaw, neck, and the psoas group in order. The heart's action now became very feeble, especially on exertion; there was some slight increase in dulness to the right side, and a systolic bruit was heard over the centre of the cardiac dulness extending to the left base. He was now put on strophanthus and iron. By the 26th the heart sounds were normal, and he was rapidly convalescing. It may be remarked that the incubation lasted fourteen days, the acute stage three weeks, and the residual stiffness for rather more than two weeks longer.

Sittingbourne.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GENERAL LYING-IN HOSPITAL, YORK ROAD, LAMBETH.

CÆSAREAN SECTION IN A CASE OF CANCER OF THE CERVIX UTERI; CHILD SAVED; DEATH OF MOTHER ON FIFTH DAY; NECROPSY; REMARKS.

(Under the care of Dr. C. J. CULLINGWORTH.)

WE publish this week one of a series of cases of Cæsarean section, performed in this country, which illustrates in a marked manner the great advance which this operation has made during recent years, in saving the life of both mother and child under conditions which had previously been treated unsuccessfully by other operative measures. By unsuccessfully, we mean by such an operation as craniotomy in contracted pelvis, when the child was inevitably sacrificed and the mother not always saved. The case is one in which there was no possibility of saving the life of the mother, already weakened by the effects of a disease which from its nature could only terminate fatally and that in a short time, and in which the extent of that disease prevented any possibility of delivery per vaginam. It will be

noted that Dr. Cullingworth expresses his opinion that Porro's operation is the preferable one in cases such as this, where the condition of the uterus may lead to septic infection of the wound. This view is in agreement with the opinions of some other obstetric physicians expressed since the operation took place which is described here. For the notes of this case we are indebted to Mr. Harold Low, late house physician to the hospital.

A woman twenty-nine years of age was admitted into the General Lying-in Hospital at 10.45 P.M. on July 13th, 1890, in a state of collapse. She had become pregnant while suffering from cancer of the cervix uteri and had been in labour for three days. She had always been a delicate woman and when five years of age was subject to attacks of epilepsy. The catamenia commenced at the age of twelve and had always been irregular, the intervals varying from a fortnight to six weeks. She had had four previous pregnancies, all going on to full term. The labours had all been difficult, three of them having necessitated the use of instruments. Her last confinement took place four years before the date of admission and was followed by severe post-partum hæmorrhage, which left her very weak for some time. She had had an offensive vaginal discharge, at times profuse, since July, 1889, and had suffered from occasional attacks of pain, which during the past five months had been very severe. There had been no hæmorrhage of importance. She had last menstruated normally at the end of May, 1889. About October she had attended at the out-patient department of St. Thomas's Hospital and had been recommended for admission. She did not, however, go in. A fortnight later she went to Charing-cross Hospital, where she saw Dr. A. Routh, who has kindly furnished the following note: "Nov. 8th, 1889: Epithelioid mass in vagina, growing solely from posterior lip of cervix. Uterus not appreciably enlarged and mammæ not suggestive of pregnancy. Catamenia regular until June; no proper period since. A day or two later, seen in consultation with Dr. Watt Black, who considered that supra-vaginal amputation of the cervix was just possible, although per rectum some retro-uterine and lateral induration could be felt. A week later patient was placed under ether, and a semilunar incision was made at the junction of the cervix and the vagina posteriorly, and the retro-uterine region exposed by opening up Douglas's pouch. The broad ligaments and pelvic glands were found to be greatly involved, so that all that was done was to curette the cervix thoroughly and apply Paquelin's cautery. The patient left the hospital in the second week of December with a healthy wound." She was seen again on Jan. 3rd, 1890, and was then found to have extensive recurrence of the disease. Soon afterwards she took to her bed and had not been able to leave it since. In February she commenced to have attacks of vomiting and "longings" which made her suspect that she was pregnant. She called in a medical man, who, both on that occasion and in March (when she felt movements), assured her that she was not pregnant. Three days before admission she began to have pains in the back and abdomen. The pains increased in severity, but she had no suspicion that she was in labour. She sent for the practitioner under whose care she had been for the past five months, but he was away. On the evening of the day of admission she was seen by another practitioner, who discovered that she was in labour and at once sent her to the hospital. The membranes had ruptured some time before her admission. The patient was much collapsed, the pulse being very rapid and feeble. The odour from the cancerous disease was extremely offensive. The abdominal swelling reached to the ensiform cartilage. The fœtal heart-sounds were heard distinctly about an inch above the umbilicus. The cervix uteri was found to be extensively diseased; for three-fourths of its circumference it was occupied by a large, nodular, ulcerated mass, which had spread for a considerable distance along the left lateral fornix of the vagina. The os uteri was equal in size to a florin, and the head of the fœtus could be felt within it. The patient was seen by Dr. Cullingworth at 11.30 P.M. After a careful examination he considered it impossible for the cervix to dilate sufficiently to permit the passage of the child, living or dead, and decided to perform Cæsarean section. Accordingly, at 12.45 A.M. on July 14th, the operation was performed, Mr. H. B. Robinson and Mr. H. Low assisting, and Dr. Anson administering chloroform. A subcutaneous injection of ¼ gr. of morphia had been administered previously. An incision was made in the abdominal wall extending from an inch and a half above the pubes to three inches above the umbilicus. The uterus was brought outside the abdomen, and a piece of thick indiarubber tubing was placed loosely around the cervix. An incision four inches and a half long was made in the middle line of the anterior uterine wall. The placenta was lying across the line of incision and was necessarily wounded in cutting through the uterine wall. Free hæmorrhage occurred, partly from the placental site and partly from a large sinus in the uterine wall. The elastic ligature was thereupon tightened. The placenta was rapidly pushed aside and the amniotic sac opened, setting free what remained of the liquor amnii. On endeavouring to extract the child it was found that the elastic ligature encircled its neck; this had, therefore, to be relaxed. The head was then extracted, the shoulders and the rest of the body quickly following, being in great part expelled by the uterus itself, which contracted very rapidly. The placenta and membranes were at once separated and removed, and the interior of the uterus was mopped with a pad of wool wrung out of a solution of mercuric chloride (1 in 1000). The edges of the uterine wound were brought together by means of eight or nine deep and an equal number of superficial silk sutures. The uterus now became relaxed, and contraction had to be re-induced by kneading and compression. No blood or liquor amnii escaped into the peritoneal cavity. The abdominal wound was closed by fifteen sutures of silkworm gut and dressed with a dry wood-wool pad and a many-tailed flannel bandage. Not much blood escaped by the vagina during the operation, and hæmorrhage had now almost ceased. The incision after being sutured measured six inches and a half. The operation lasted fifty minutes. The patient was in good condition at the close; her pulse was 104. The child, a male, was quickly resuscitated by Mr. Stokes. It weighed 5 lb. 12 oz. and measured 20½ in. in length. No sickness followed the operation. Severe pains of a paroxysmal character came on in a few hours, and at 6 P.M. the patient became very restless. Next day the abdomen became distended, but relief was at once given by passing the rectal tube. Vomiting occurred three times during the day. At midnight the patient became very restless and her pain became constant. The pulse increased in rapidity, and sickness and retching became very troublesome. At 4 P.M. on July 16th a copious relief of the bowels, accompanied with the passage of much flatus, followed an enema. There was no sickness during that day, but the patient became gradually weaker, delirium set in, the pulse became more rapid, and death occurred at 6.30 P.M. on the 18th, 114 hours after the operation.

Necropsy eighteen hours after death by Dr. WHEATON.—On separating the edges of the abdominal wound some purulent fluid escaped; the omentum was adherent, and all the abdominal organs were coated with buttery lymph of recent origin. There was general and intense peritonitis, the inflammation having been most marked about the uterus. There were about four pints of very offensive purulent fluid in the peritoneal cavity. There was some gaping at both the upper and lower angles of the uterine wound.

The child progressed well, and when last heard of, at about the age of twelve months, he was in excellent health. An endeavour has been made, for the purposes of this report, to discover whether he is still doing well, but the father has removed and cannot be traced.

Remarks by Dr. CULLINGWORTH.—It was intended to publish the above case two years ago, but the notes had been removed from the hospital and could not at that time be traced. It is only quite recently that they have been returned. The case is the only one in which I have had to perform Cæsarean section on account of cancer of the cervix uteri. Usually even when the extent of the disease is considerable a sufficient amount of dilatation takes place, with or without artificial aid, for the child to be born *per vias naturales*, but now and then a case occurs in which the surrounding tissues are extensively infiltrated with new growth and in which the cervix scarcely even makes a serious attempt to become dilated. In such a case there is no choice but either to deliver by abdominal section or to leave the patient to die undelivered. The mortality of Cæsarean section performed for cancer of the cervix is very high owing to the debilitated state of the patient and the risk of septic absorption from the diseased tissues. Of twelve cases mentioned by Dr. Herman in his admirable paper on the Treatment of Pregnancy complicated with Cancerous Disease of the Genital Canal[1] eight died. Even with antiseptics the mortality

[1] Transactions of the Obstetrical Society of London, vol. xx., 1878, pp. 191 to 285.

would probably be not much below this. In the case above recorded the patient had been three days in labour and was in a state of extreme exhaustion; but as the child was alive it seemed to be one's duty to operate in spite of the prognosis for the mother being so unfavourable. The child was saved by the operation. The cause of the mother's death was septic peritonitis, due to absorption from the diseased tissues. Should I ever have occasion to operate again under similar circumstances I should be disposed to perform Porro's operation. It is evident that pregnancy must have commenced before Dr. A. Routh's exploratory operation in November, 1889, though it is equally certain that it was in too early a stage to be diagnosed. The remarkable point is that the operation, involving as it did the opening of Douglas's pouch, was not followed by abortion.

SALFORD ROYAL HOSPITAL.

THREE CASES OF THYROID CYST AND ADENOMATA TREATED BY ENUCLEATION.

(Under the care of Mr. HERBERT LUND.)

THESE cases are a further contribution to the surgery of tumours of the thyroid gland, examples of which we have recently published in THE LANCET of Nov. 4th, 1893, in a paper by Mr. C. J. Symonds. In all of them the essential steps of the operation were similar. The surgeon made an incision down to the growth and treated the tumour by "shelling out," the chief difficulty being to define the capsule of the cyst or tumour in order to enable the whole to be treated in this way. There was very little bleeding when the tissue of the thyroid body was divided, and this is accounted for by the fact, pointed out by Mr. Symonds, that the arteries of the thyroid gland are not enlarged in these tumours as they are in the parenchymatous form of goitre.

CASE 1.—A married woman without family, thirty-one years of age, was admitted into the Salford Royal Hospital on Jan. 28th of this year, suffering from an enlargement of the thyroid gland which caused some difficulty in breathing, but was unattended by pain or by any difficulty in swallowing. It appeared to be confined to the right lobe of the gland, but encroached slightly upon the isthmus; to the touch it was extremely hard and gave no sensation of fluctuation. The trouble had been first noticed seven years previously and in spite of local application had steadily increased. The measurements of the neck before and after operation have unfortunately been mislaid, but, roughly speaking, the tumour was about the size of a hen's egg. Before the commencement of this trouble the health had been good, but lately the breathing had become more difficult, and the patient was nervous about herself and very anæmic. She had resided in various parts of Lancashire and Yorkshire, both her parents were healthy, and there was no history of any similar trouble in other members of the family. On Feb. 3rd, chloroform having been administered, an incision three inches and a half in length was made in the median line of the neck. The underlying tissues were divided upon a director, and several large veins forming a plexus required ligatures. The edges of the wound being retracted, the right lobe presented itself. The lobe was then incised, and the depth of the incision was increased by scalpel and director until the white capsule of the tumour was exposed. Then, partly with director and partly with the finger, the tumour was easily shelled out. The hæmorrhage was never excessive and was readily controlled with pressure forceps. The cavity was then washed out with warm carbolic lotion (1 in 20) and the wound was closed with silk and horsehair sutures; a small drainage-tube was inserted at the lower angle, and carbolised gauze dressings were applied. The tumour proved to be a cyst, oval in shape, measuring in section 2½ in by 1½ in. The wall measured $\frac{1}{16}$ in. in thickness, and from the inner surface sprang a small intra-cystic growth. The dressings were changed on the 6th, 8th, and 10th days of the month, and on the 14th the wound was completely healed. The temperature never rose above 99° F. During the operation the trachea was seen to be somewhat flattened laterally, and there was for a moment some difficulty in the respiration due to traction upon the tumour. On July 26th the patient was seen; the trouble in breathing had entirely disappeared, and the general condition of health was much improved. The scar had assumed a distinctly keloid condition.

CASE 2.—A girl sixteen years of age, who had twice been in the hospital for tuberculous disease of the ankle, first noticed her neck becoming large about twelve months ago, since which time the enlargement gradually increased, but had never given rise to pain, nor had there been any difficulty in breathing. There was some trouble in swallowing, particularly when the patient was in a recumbent position. A brother has a "swelling in the neck," otherwise the family history is good. She is a native of Shropshire and has resided there until quite recently. The enlargement occupied the middle line in the situation of the isthmus of the thyroid body, but it extended also laterally and more to the left side than to the right. It had a smooth uniform surface and firm consistence, and there was no evidence of fluctuation. The neck measured 14½ in. in circumference over the most prominent part of the tumour. On June 21st last, chloroform having been administered, an incision 3 in. in length was made in the middle line of the neck over the tumour, the fascia being divided on a director and the muscles retracted. The capsule of the gland was then exposed, and some large veins coursing over it required ligaturing. The capsule was then incised, and the incision was deepened by scalpel and director until the tumour was exposed and easily shelled out, as in the first case. A few bleeding points required attention, but were easily controlled. The dressings were the same as in Case 1, but only horsehair sutures were used, no silk. The tumour, which was situated in the left lobe of the gland, measured 3 in. by 2½ in. in section. The appearance was that of a simple adenoma. A small cyst containing dark-coloured gelatinous fluid occupied the lower and posterior surface. The subsequent progress of the case may be briefly recorded:—

June 23rd.—The wound was dressed. The temperature is 100°, the pulse is 112, and the respiration is 21.

24th.—She complained of slight pain in the throat. The temperature is 98·4°.

27th.—The tube was removed. The temperature is 98·4°.

29th.—All the sutures were removed. The wound is quite healed except at the lower angle, where the tube was; this is granulating.

July 18th.—The patient is in excellent health. The scar measures 2 in. in length and ¼ in. in breadth and is slightly raised. The circumference of neck is 12½ in.

CASE 3.—A lad seventeen years of age, a fitter by trade, was admitted into the Salford Royal Hospital on June 12th of this year and gave the following history. He resided in Lancashire until twelve years of age. In 1888 he went to South America and lived in a district where the water was very brackish. In 1891 his attention was directed to a "lump in his throat," so he went to the hospital and after three months' ineffectual treatment with medicine and ointment was advised to have an operation performed. He had felt very little inconvenience from the enlargement, but in swallowing he "had to shove his head forward so as to pass food easily." In 1892 he came to Manchester, but he had had no advice until he attended the out-patient department at the Salford Royal Hospital. The condition noted was as follows: there was an enlargement of the thyroid isthmus, encroaching upon the left lobe. The tumour appeared to be solid and smooth and gave no sensation of fluctuation; it moved on deglutition, and there was no pain. The circumference of the neck over the tumour was 14½ in. On June 17th, under chloroform, a median incision 2½ in. in length was made through skin and fascia. There was some hæmorrhage from a plexus of veins before the isthmus was reached. The capsule was then incised, and the incision was deepened until the tumour was exposed. The tumour itself was unfortunately incised, and this caused more hæmorrhage than there should have been, but as soon as its true surface was defined it was easily shelled out, and there was no further trouble. The wound was flushed out with warm carbolic lotion (1 in 20) and closed with horsehair sutures; a drainage tube was placed at the lower angle, and the usual carbolic gauze dressings were applied. The tumour was oval in shape and faintly lobulated. On section it presented all the appearance of an adenoma and measured 2 in. by 1½ in. The subsequent history is briefly as follows:—

June 18th.—The wound was dressed. The temperature is 100° F.

20th.—The wound was dressed, and the tube was removed. The patient had a tendency to sickness. The temperature is 100°.

25th.—The patient is suffering from follicular tonsillitis. The temperature is 103°.

27th.—The temperature is 98·8°. The wound is healed except at the lower angle.

July 6th.—There is a small granulating surface. The patient gets about and goes out.

31st.—The wound is quite healed, but the scar has stretched. The circumference of the neck is 12 in.

Remarks by Mr. HERBERT LUND.—The chief trouble in the operation appears to be the difficulty in correctly defining the capsule of the cyst or adenoma before commencing enucleation. In the first case the incision was not quite deep enough and the gland tissue was somewhat lacerated, and in the third case the incision was too deep, and the adenoma was consequently wounded; but in both, as soon as the error was detected, the operation was easily completed. The hæmorrhage gave rise to no trouble, each bleeding point being in view and easily controlled by pressure or ligature. In the first and third cases there was for a moment some difficulty in the respiration during the operation, due to rough handling of the tumour and traction. The scar of the wound in the first case has developed keloid, and the scars in the other two cases are becoming broader and more raised and appear to be following a similar course. My thanks are due to my colleague, Mr. E. T. Milner, and to the house surgeons, Messrs. C. C. Heywood, G. E Newby, and S. M. Brown, for the assistance they gave me at the operations, and for the attention and care they bestowed upon the cases in the after-treatment.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

False Disseminated Sclerosis due to Measles—Disseminated Fibrosis of Kidney in Malignant Endocarditis.

AN ordinary meeting of this Society was held on Nov. 28th, Dr. CHURCH, Vice-President, being in the chair.

Dr. DAWSON WILLIAMS gave particulars of a case of False Disseminated Sclerosis due to Measles, with remarks on the occurrence of certain widespread nervous disorders after this and other infectious diseases. The patient was a girl aged three years and eight months, who on the fourth day of an ordinary attack of measles was seized with convulsions, after which she remained "unconscious" for ten days. When admitted into hospital about four weeks after the convulsions she was in an apathetic condition, had some difficulty in swallowing, did not speak, and was unable to sit up. Though she could move her limbs feebly, she was not able to feed herself or to stand. Very slowly she improved, so that at the end of three months she was able to speak a little, to feed herself, to stand up, and to walk with assistance. The movements of the upper limbs were uncertain, owing to coarse tremor and incoördination. The knee-jerks were "easily got." There was no ankle-clonus. When she was six years old her speech was peculiar, slow, deliberate, and syllabic; she was backward, though not so deficient in intellect as appeared to be indicated by the vacant expression of her face. There was at this time tremor of the hands, aggravated by attention. Two years later her condition had improved. Speech was still very deliberate, but she answered questions intelligently. She could walk several miles, but the gait was of the spastic type, the legs were adducted, and owing to some rigidity and imperfect flexion of the knees the toes were liable to catch against any small obstacle and give her many falls. Slight coarse tremor affected the limbs during voluntary movements; she drank without difficulty, but swallowed in noisy gulps. The knee-jerks were very free, and front tap contraction was easily elicited. At a later stage ankle-clonus of short duration could be obtained. When ten years old she was still very backward at school. Tremor, aggravated by attention, was present in all the limbs and involved the head; it interfered with the performance of any fine movement of the hands. She could walk six miles, but her gait had the same character as before. Nystagmus was not observed at any period. Reference was made to recorded cases of widespread affections of the nervous system occurring in association with measles, and the opinion was expressed that if hemiplegia and atrophic muscular paralysis be excluded the cases might be classified as follows: (*a*) acute disseminated myelitis; (*b*) cases presenting at a later date symptoms resembling disseminated sclerosis ("false disseminated sclerosis"); (*c*) cases in which, with some symptoms similar to those of the preceding group, the most prominent symptom was incoördination; (*d*) cases of "extensive, ascending, diffuse, or disseminated" paralysis, resembling diphtherial paralysis. A consideration of published cases of nervous disorder occurring in association with scarlet fever, small-pox, typhoid fever, whooping-cough, influenza, and mumps led to the suggestion that they might be classified on the same system, though all the terms of the series had not been observed in connexion with all of these diseases. It was pointed out that "false disseminated sclerosis" had been observed after diphtheria. In acute disseminated myelitis, complicating variola (Westphal) and measles (Barlow), the changes in the cord were primarily vascular, and it was thought that the clinical evidence lent support to Westphal's suggestion that a slighter degree of mischief might give rise to changes which eventually produced the condition which had been described as "false disseminated sclerosis." It was suggested that certain cases, in which temporary incoördination of the lower limbs developed after acute infectious disease, might probably be due to the same pathological condition in a still milder form.—Dr. ORMEROD thought that there remained only one disease associated with these nervous symptoms which Dr. Williams had not mentioned—namely, rheumatic fever. Dr. Foxwell had reported in THE LANCET a case with symptoms of nerve trouble analogous to those now described. These symptoms, in association with measles, occurred in the early stage of the infectious disease while the fever was still present; they began acutely, with delirium, loss of consciousness, &c.; the affection of the speech was grave or permanent, and the limbs showed partly ataxy and partly paresis, while the disease tended to get better. In one case recorded by Ebstein,[1] after either variola or typhoid fever the patient became better, but died two years later from some other cause. Ebstein could not distinguish the nervous lesions which he then found from disseminated sclerosis, but, as Jaccoud had pointed out, the symptoms differed from disseminated sclerosis in coming on suddenly and tending to get better. The names pseudo-disseminated sclerosis and pseudo-ataxy were, he thought, not well chosen. Pseudo-ataxy differed from the symptoms under discussion in that it came on only after the fever had subsided and the speech was not affected. The association of these nervous affections with measles was important in connexion with the muscular atrophy of acute regressive nature which had been observed in relation with that disease. He had seen some cases after measles in which the muscular atrophy was progressive, and occurred in three members of the same family. Such were alluded to by Professor Charcot and Dr. Howard Tooth as of the peroneal or leg type. Later, Dr. Donkin had recorded other cases following measles. His conclusion was that measles, in conjunction, perhaps, with hereditary influences, might be the means of determining the onset of nervous disease.—Dr. PENROSE said that he examined the cord in Dr. Barlow's case, and they were much struck with the foci of vascular exudation which were found. Although the anterior cornua were mostly affected, yet through the white matter were scattered other foci of larger and smaller size. Dr. Barlow suggested at the time that had the patient recovered it would have brought on such a type of disease as had been described in Dr. Williams's paper. Three years ago he saw a case of influenza which proved fatal from disease of the spinal cord, and on examination there were several areas of diapedesis around the bloodvessels and large foci of leucocytes in the white and grey matter.—Dr. BEEVOR said that the difficulty was to localise the lesion and to determine its nature. Its sudden mode of onset, the unconsciousness, and fits all pointed to the cerebrum rather than the spinal cord, and the lesion was probably a vascular one. The spinal cord changes were probably descending lesions from the brain. The spastic gait and increase of deep reflexes pointed to disease of a different type to that which occurred after diphtheria. The lesion, he thought, was either a small hæmorrhage in the cortex or a thrombosis of the cortical veins; either of them would account for the symptoms. After infantile hemiplegia incoördination of the arms occurred, and if a lesion such as he had described existed on both sides symptoms such as those mentioned in the paper would arise.—Dr. CHURCH inquired if there was tremor in Dr. Ormerod's cases. He had met with two or more similar cases in typhoid fever in children. In one there was unconsciousness without hyperpyrexia for some hours and semi-consciousness for many days, together with loss of power of speech and some hemiplegia. This case ultimately recovered.

[1] Deutsches Archiv für Klinische Medicin.

He asked what was the cause of tremor in the lower animals after infective disease. In dogs persistent muscular twitchings in the lower limbs and the tail sometimes occurred after distemper, unassociated with nystagmus. It was called by the veterinarians "chorea," but the movements were more like those of disseminated sclerosis.—Dr. ORMEROD said that in some cases there was tremor and in others not. Westphal thought that the speech was not quite like that of disseminated sclerosis; he described the syllables as being "squeezed out."—Dr. DAWSON WILLIAMS, in reply, said that another case very similar had been reported in Germany since his paper had been written. The speech was distinctly different from that in disseminated sclerosis and almost amounted to a stammer. The analogy with canine chorea was very striking. Dr. Gowers, in a paper in THE LANCET about ten years ago, published some observations on the spinal cord of the dog, and he found sclerotic lesions in these cases of so-called chorea. Dr. Ormerod wished to separate the cases in which the symptoms developed early from those in which they came on late; but the speaker did not think this was warranted, for the symptoms were extremely similar in the two sets of cases. Nearly all the milder cases of "pseudo-ataxy" in connexion with typhoid fever were reported under the head of "aphasia," as that was one of the most prominent symptoms. A tolerably complete series of cases existed on record which linked examples of so-called "false disseminated sclerosis" with ordinary cases of extensive diphtheritic paralysis.

Dr. W. AINSLIE HOLLIS then read a paper on Disseminated Fibrosis of the Kidney found in cases of Malignant Endocarditis, Aortitis, and kindred diseases: its pathological significance and its chief clinical features. Apart from changes due palpably to embolism, he had observed three well-marked varieties of renal disorder associated with endocarditis maligna: (1) the tough congested kidney; (2) the large mottled kidney; and (3) the small speckled kidney. He maintained that these varieties were only different phases of the same disease, which essentially consisted in scattered groups of readily stained nuclear bodies within the renal areolar tissue. He had found groups of similar bodies in the coats of the aorta and in the cellular tissue around the vasa vasorum of that vessel whenever atheroma was also present, and this vascular degeneration he had invariably found to be associated with the above-mentioned renal mischief. In the kidneys the presence of groups of these nuclear bodies, which were mostly smaller than blood-corpuscles, led: (1) to local overgrowths of fibrous tissue, (2) to the destruction or damage of the special renal structures involved thereby, and (3) to an exceptional physiological stress upon the remaining still healthy structures of the organs. The nuclear bodies were described, and their conveyance by the blood, from the aorta to the kidney provisionally accepted as a working hypothesis. Finally, the chief clinical features of the disease were recapitulated. The paper was illustrated with both macroscopic and microscopic specimens, and brief notes of some cases were also read.—Dr. HERRINGHAM saw nothing in the specimens other than an ordinary fibrosis familiar to those who examined diseased kidneys. He could not look upon atheroma as an "infective disease" as those words were usually understood. Nevertheless, he admitted that the pathology of renal diseases was confused and confusing.—Dr. HOLLIS, in reply, held that he had shown it to be probable that one disease of the kidney was more or less dependent on previous disease of the aorta and that renal trouble was frequently associated with infective endocarditis. Many of the new cells had an "apple-pip" shape, which explained the appearances shown in the sections. The disease in the aorta was, he believed, similar to that of the kidney.

MEDICAL SOCIETY OF LONDON.

Syringomyelia. — Congenital Pemphigus. — Cretinism. — Femoral Aneurysm.—Obstruction of Superior Vena Cava.—Hydatid of Bladder.—Congenital Cystic Tumour of Neck and Axilla.—Electrolysis for Dilated Venules of Face.—Lateral Sinus Pyæmia.—Contraction of Palmar Fascia.—Diffuse Lipoma of Neck.—Skin-grafting for Lupus.—Lichen Pilaris.—Multiple Lineæ Atrophicæ.

A CLINICAL MEETING of this Society was held on Nov. 27th, Dr. F. ROBERTS, Vice-President, being in the chair.

Dr. C. E. BEEVOR showed a case of Syringomyelia in a young woman aged twenty-three years. There was wasting of both thenar and hypothenar eminences and of the interossei of the hands, the nails were brittle, and the skin was rough and dry and hyperæmic. The knee-jerks were increased. There was no loss of tactile sensation, but sensation of pain was lost over the upper limbs, the head, neck, and upper part of the thorax. Power to distinguish heat and cold was lost over the same area.

Mr. LUNN showed a boy aged ten years who was the subject of Congenital Pemphigus. There were blebs all over his body. There was a history of snuffles in other members of the family and the child looked syphilitic. Large doses of arsenic and other treatment had been tried without avail.

Mr. LUNN also showed a cretin twenty-six years of age to whom thyroid extract had been given since May. She had much improved and was becoming very intelligent; the menses had commenced.

Mr. BALLANCE and Mr. LUNN exhibited a case of cured Popliteal Aneurysm with Persisting Fluctuating Tumour in the Popliteal Space. The patient was a man twenty-seven years of age who is under Mr. Lunn's care at the Marylebone Infirmary. About six weeks ago the femoral artery was ligatured by Mr. Ballance at the apex of Scarpa's triangle with a "stay knot" of goldbeater's skin ligature. All pulsation in the tumour at once ceased, but the tumour (which now fluctuated) had not appreciably diminished in size. Mr. Ballance discussed the question of the association of sarcoma and aneurysm, and also the rare event of the non-absorption or very slow absorption of an aneurysm when the vessel at the site of the aneurysm was obliterated. He thought the case was one of the latter kind and said that Mr. Lunn and he proposed, if the tumour did not diminish in size, to treat it like a large hæmatoma: to turn the clot out and stuff it with gauze, thus getting rid of a swelling which would otherwise interfere with the usefulness of the limb.

Sir HUGH BEEVOR brought forward a man aged twenty-seven years, who was the subject of Obstruction to the Superior Vena Cava of fifteen years' duration. While following his work he found that he suffered from dyspnœa, with sense of constriction of the throat and cyanosis of the face. The patient had had syphilis, but there was no evidence of disease in the upper part of the chest. The veins over the front of the chest were greatly dilated. Two cases had been recorded by Drs. Bristowe and Seymour Taylor of obstruction of the superior vena cava in connexion with gummata of the mediastinum.—Dr. ROBERTS doubted whether the superior vena cava was completely obstructed in this case. He had met with one or two instances of complete obstruction. In one there was extreme cyanosis of the surface veins, and at the necropsy a dense mass of fibrous tissue was found round the superior vena cava. In another case an aortic aneurysm ruptured into the superior vena cava and gave rise to some weird symptoms.

Mr. HURRY FENWICK brought forward a patient upon whom he had operated and removed a large Hydatid Cyst which was situated between the muscular wall of the back of the bladder and the peritoneum. It had grown with great rapidity, reaching almost to the umbilicus in four weeks. A hydatid fremitus was detected and the tumour diagnosed to be of this character. A supra-pubic incision in the middle line disclosed the empty bladder, which had been crowded out of the pelvis by the encroachment of the cyst. The viscus was displaced to the left. The cyst was opened and thirty-four ounces of fluid were evacuated; then half a small pot-ful of daughter cysts were scooped out with a large spoon, and the sac was drained. The patient made an uneventful recovery. Reference was made to two other cases of a similar class which had been shown at the Pathological Society, and stress was laid upon the insidious backward renal pressure which such cysts exerted by nipping the ureters as they turned over the brim of the pelvis.—Mr. SHEILD remembered seeing a case in the Cambridge Hospital which was admitted for retention of urine; after catheterisation a small hydatid cyst was passed per urethram. Mr. Carver then made a median incision in the perineum on a staff and evacuated much fluid and many daughter cysts; a sound recovery ensued.—Mr. BALLANCE saw a case in St. Thomas's Hospital (under the care of Dr. Murchison) of abdominal tumour with difficulty of micturition; there was a swelling to the left of the bladder with a hydatid thrill. It was aspirated above the pubes, and the patient made a perfect recovery. There was a considerable flow of urine into the bladder immediately after evacuation of the cyst.

Mr. MARMADUKE SHEILD showed a specimen of a large Congenital Tumour removed post-mortem from the infant

whose case was reported in last year's Transactions. The tumour had no boundaries towards the axilla or the root of the neck. It pressed deeply beneath the clavicle, and the subclavian vessels traversed its substance. In September last the tumour, without any apparent cause, underwent spontaneous inflammation, increased enormously in size, and became red, hot, œdematous, and livid. Aspiration in several places only drew away a little bloody serum. Despite careful treatment the child died in three weeks. The tumour was composed of dense connective tissue and fat throughout its main bulk, but towards the axilla and the root of the neck this tissue merged by insensible gradations into sponge-like tissue and finally into distinct cysts the size of peas or grapes filled with yellow serous fluid. Microscopically, the walls of the cysts were seen to be composed of well-formed fibrous tissue enclosing well-developed fat cells. Neither epithelial nor endothelial lining was visible. The contents of the cavities were granular, homogeneous, or fibrillar, the appearance varying. In a few places some small round cells could be made out. There was no evidence of malignancy. The tumour belonged to the class of cystic hygroma, with more connective tissue than usual. The necropsy illustrated the fact that these formations, however superficial they might appear to be, invariably extended beneath the deep fascia, where they primarily originated. In a case successfully operated on by Mr. Sheild, and fully reported with an illustration in THE LANCET of Jan. 7th, 1893, the congeries of cysts extended beneath the deep cervical fascia from the hyoid bone to the mediastinum, though the growth at the outset of the operation seemed to be quite superficial. Sarcomatous tissue was sometimes mingled with these growths, and they then showed a definite malignancy. Spontaneous inflammation was the ordinary fate of cystic hygromata; the process was curative and might result in shrivelling if the patient could withstand the inflammatory fever and exhaustion.

Mr. B. SQUIRE showed a woman aged forty years on whom he had performed Electrolysis for some Enlarged Bloodvessels of the Skin of the Face. There had been twelve sittings of half an hour each.

Mr. BALLANCE exhibited a young man aged twenty years after his recovery from Lateral Sinus Pyæmia. He was admitted to St. Thomas's Hospital at the end of last September, having been very ill for eight days, with high fever, rigors, vomiting, and delirium. For many years he had had discharge from the left ear. On admission the condition was as follows: offensive left otorrhœa, a temperature of 105·5° F., patient shivering and drowsy, rapid pulse, tongue dry, œdema and redness over mastoid, and a tender swelling over the jugular vein at the lower border of the left parotid. Operation was performed immediately. All pus and granulation tissue in the mastoid and the petrous were removed, the sinus was freely exposed, and the vein was visible at the level of the hyoid; but as it was seen to be clotted another incision was made lower down, and it was divided between two ligatures just above its junction with the subclavian vein. The sinus was then freely incised and plugged with gauze as no clot was found in it. The patient made an immediate and rapid recovery; indeed, he had practically no symptoms of illness—no fever, shivering &c.—after the completion of the operation.

Mr. LOCKWOOD showed a shoemaker aged fifty-nine years who had been almost debarred from following his employment owing to Contraction of the Palmar Fascia of gouty origin. There were gouty deposits in the knuckles and ears and at the root of the penis. The contracted fascia was treated by multiple subcutaneous incisions.

Mr. LOCKWOOD also exhibited a man aged forty-five years who had a Diffuse Lipoma of the Neck which had interfered with his obtaining employment. He turned down a large flap and took away masses of fat. The hæmorrhage was easily controlled and convalescence was rapid.

Mr. WATSON CHEYNE showed a case, which he had previously exhibited last March, of Skin-grafting for Lupus, the disease having been first freely excised. The result was still excellent.—Mr. LUNN mentioned the good results that he had obtained with sanguinaria and chloride of zinc locally applied.

Dr. EDDOWES showed a girl who had been the subject of Lichen Pilaris, developed symmetrically on both legs, and who now presented a condition suggestive of Darier's disease or acne scrofulosa.

Dr. PASTEUR brought forward a single woman aged thirty-two years who presented large numbers of Lineæ Atrophicæ in various parts of the body. About two years and a half ago she became very much stouter and noticed the formation of reddish streaks, which had since then become gradually paler. Many of the streaks were of considerable width, pinkish or bluish in colour, and becoming pearly white in places. The parts most affected were the lateral aspects of the buttocks, the inner sides of the thighs, and the posterior folds of the axillæ, and to a less extent the breasts, lower abdomen, anterior axillary folds and upper part of the calves. The skin was quite thin and atrophied over the affected areas, which were indistinguishable from the lineæ albicantes following pregnancy.

CLINICAL SOCIETY OF LONDON.

Rotation Outwards of Lower Limbs treated by Transverse Division of Femur.—Replacement of Dupuytren's Fracture of Ankle.—Empyema of Antrum.—Traumatic Cephalhydrocele.—Spontaneous Cure of Meningocele of Posterior Fontanelle.—Ankylosis of Spine—Deficient Development of Lower Jaw.—Multiple Toxæmic Neuritis—Idiopathic Sclerosis.—Pseudo-hypertrophic Paralysis in Members of the same Family.—Fibrous Nodules in Osteo-arthritis.—Displaced Carpal Bone—Cyst of Femur.—Chronic Apical Phthisis—Unusual Form of Œdema.—Myxœdema treated by the Administration of Thyroid Gland.

A CLINICAL MEETING of this Society took place on Nov. 24th, the President, Mr. HULKE, being in the chair.

Mr. WATSON CHEYNE showed a little boy who had been unable to walk properly owing to Extreme Rotation Outwards of the Femora. Massage was at first tried and failed; he then divided the femur transversely at the upper third and rotated the lower part of the thigh and the leg inwards. He then nailed the divided ends together with an aluminium plate and nickeled tacks. The boy now walks fairly well, so the other leg was not interfered with. The acetabulum did not appear to be properly developed, but there were no signs of congenital dislocation.—Mr. STANLEY BOYD remarked that the firm gait of the child was against congenital dislocation. He had seen three cases in which the head of the femur appeared to be too prominent anteriorly.

Mr. CHEYNE also exhibited a man fifty-one years of age who two years previously had sustained a Dupuytren's Fracture with outward Displacement of the Foot, together with the Lower End of the Fibula. In order to correct the deformity he first divided the fibula at the seat of fracture, then chiselled away the broken internal malleolus, which had become ankylosed to the lower articular surface of the tibia, and finally cut away a portion of the superior articular surface of the astragalus, which had become wedged between the tibia and fibula. The foot was then replaced in its right position and the fibula was wired.

Mr. BALLANCE brought a man aged twenty-seven years who was suffering from Empyema of the Antrum to illustrate the value of Heryng's method of trans-illumination. There was a discharge from the left nostril for one year with a very offensive smell, of which the patient was himself conscious, though those around him were unable to perceive it. After holding his head down between his knees pus appeared in the middle meatus. The room having been darkened, an electric light of about three-candle power was placed in the patient's mouth and the lips closed. One side of the cheek was then brilliantly illuminated up to the lower eyelid, whereas on the other side there was a distinct shadow. The treatment was to open the front wall of the antrum and cleanse the cavity, afterwards stuffing it with iodoform gauze.

Mr. STEPHEN PAGET showed a child fourteen months old who eight months before had fallen and struck the side of the head. There was a long jagged gap in the right parietal bone, which was becoming larger, though some new bone could be felt at the bottom of the gap. He regarded it as an injury to the growing centre of the bone, and one of a class of cases that had been described by Mr. Thomas Smith as traumatic cephal-hydrocele.

Mr. PAGET then showed a man aged thirty-three years with a Cured Meningocele at the Posterior Fontanelle. It was large at birth, and when he was a year old discharge was noticed to issue from a pinhole opening. Nothing was now left but a shrunken sac, which did not communicate with the interior of the skull and was only tender when it was lifted up.

Mr. PAGET lastly exhibited a man twenty years of age with Ankylosis of the Spine. When eight years of age he had

been injured whilst playing leapfrog, and after that he wore a jury mast day and night for eighteen months. There was no angular curvature, but almost complete ankylosis of the spinal column, with extreme lordosis.

Mr. ARBUTHNOT LANE showed a girl with Deficient Development of the Jaw after Ankylosis of one Temporo-maxillary Articulation. When she was eighteen months old she was stung in the neighbourhood of the left eye, after which an abscess formed, and later she was unable to open the jaw. When he saw her there was no movement in the left temporo-maxillary articulation. He had set this free by operation, and he brought the case forward to illustrate how loss of function would bring about atrophy of the jaw, while hypertrophy of the incisor teeth had followed their want of apposition with those of the upper jaw.

Dr. MOTT demonstrated an instance of what he believed to be Multiple Toxæmic Neuritis in a man aged thirty-four years who was under the care of Dr. Green in Charing-cross Hospital. He was admitted with swelling of the right ankle and fever. There was no history of alcoholism or lead poisoning. There were pains in the limbs, and blood was passed in the urine; later there were diarrhœa and passage of blood per rectum. An erythematous rash developed on the right side of the body, followed by paralysis of the same side. Nearly all the small muscles of the hand showed the reactions of degeneration and there was diminished sensibility of the right arm and leg; before this the deep reflexes had been exaggerated. Later the muscles of the left side became affected. He had cultivated a diplococcus from the blood which was present as long as the fever lasted, but injections of large cultivations into animals had not been productive of symptoms.

Dr. MOTT also brought from Dr. Green's wards a woman aged thirty years who was suffering from so-called Idiopathic Sclerosis. Four days after parturition numbness of the right leg and hand developed, followed by paresis. There was some affection of speech, and later the left side became involved. She had a typical spastic gait. He regarded it as an instance of thrombosis of the veins of the leg area which opened into the longitudinal sinus.

Dr. FRANCIS HAWKINS showed for Dr. SANSOM two brothers aged eleven and eight years respectively who were the subjects of Pseudo-hypertrophic Paralysis. The grandfather and an uncle on the father's side had suffered from fits.

Dr. J. TAYLOR brought forward again two brothers whom he had shown three years ago. They were members of a family of seven, the other children being healthy. They were suffering from well-marked Pseudo-hypertrophic Paralysis, which had advanced considerably while they had been under observation. They were now being treated with five-grain doses of dried thymus gland.

Dr. TAYLOR also exhibited a man twenty-five years of age who had been healthy till eighteen, when Pseudo-hypertrophic Paralysis commenced. There was considerable enlargement of the first dorsal interosseous muscle of the hands.

Dr. NEWTON PITT showed a woman aged fifty years, the subject of Osteo-arthritis of twenty-three years' duration, in whom over the joints and on the tendons a multitude of fibroid subcutaneous nodules had developed. There was no cardiac mischief.

Mr. BATTLE showed a seaman twenty-five years of age who had received severe injuries from an accident. Over the front of the left wrist, beneath the skin, could be felt a hard, movable mass, which was a dislocated bone of the first row of the carpus. As a result of damage to the foot a splinter of bone projected behind the heel, and this was covered by an exuberant growth of horn.

Mr. BATTLE likewise introduced a girl fourteen years of age who had complained of swelling and pain about the lower end of the right femur, which was found to be enlarged and tender. An incision carried behind the capsule penetrated to the middle of a large cyst occupying the lower end of the bone. There was no cyst wall or tumour formation, the outer limit of the cyst being simply compressed bone. Thorough scraping and drainage were the treatment adopted.

Dr. H. CAMPBELL showed a man aged twenty-one years, who was admitted into Victoria Park Hospital eleven years ago suffering from phthisis, limited to the apex of the right lung. There was still evidence of active disintegration going on in that region.

Dr. CAMPBELL also exhibited a woman fifty years of age, the subject of an unusual form of Œdema. Twelve years ago she noticed a swelling in the left axilla and breast, and four years since an attack of acute erysipelas occurred on that side. The arm and forearm had since remained swollen and œdematous, but the fingers were not involved. Dr. Campbell regarded it as being a primary inflammation of the lymphatic radicles of the forearm and arm.

Dr. ORD and Mr. E. WHITE gave their results of some observations on a case of Myxœdema treated by administration of the Thyroid Gland of the Sheep, with special reference to changes occurring in the urine. The notes of this case were first presented, showing the condition of the patient before treatment. The case was typical and of some years' duration. Dr. Ord and Mr. White had undertaken an inquiry into the possibility of the occurrence of changes in the urine, indicating changes in the chemistry of the body after the administration of the thyroid gland in myxœdema. For more than a week before the commencement of treatment a careful measurement and analysis of the diet of the patient was instituted. The quantity of the urine was registered daily, and it was analysed daily in reference to total solids, ash, urea, nitrogen, chlorine, and phosphoric acid. After the institution of the treatment, the same diet being used, the observations were continued. From a chemical point of view it resulted that a large increase of excretion of nitrogen, chiefly in the form of urea, followed the administration of the thyroid gland. There was in this case no marked change in the excretion of chlorine; it was, in fact, slightly increased. At the same time there were an increase in the quantity of urine, a decided rise of the temperature of the body, and a rapid loss in weight. The physical and mental conditions of the patient underwent rapid improvement, amounting to almost a cure. They had to remark that the changes in the urine in such cases were of great value in presenting some estimate of altered metabolism following the use of the thyroid gland. They recognised that their observations were not final, but must be supplemented by more numerous and more varied experiments. They went on to consider some of the methods of preparing and administering the thyroid gland as a whole, as glycerine extract, as powder, &c., and offered some remarks regarding dosage. Mr. E. White pointed out that the curve of nitrogen excretion corresponded very closely to that of the excretion of urea. Before the treatment was commenced the quantity of nitrogen ingested was in excess of that excreted, but this was reversed when the treatment was inaugurated.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting of this Society held on Nov. 20th, Dr. WOODFORDE, in taking for the subject of his presidential address the Local Government Bill now under the consideration of Parliament, remarked that, while the late Government had succeeded in carrying the first part only of their Bill, which as the Local Government Act (1888), England and Wales, created county councils, the third part, which it was hoped they would have been able to reintroduce later as a supplementary measure, provided for the constitution of district councils subordinate to the former. The present Bill went further, and would establish local councils in every parish having over 200 inhabitants, and parish meetings in all. Though the district council would be the sanitary authority considerable powers were vested in the parish council, including several of a sanitary character, besides such as might be delegated to it by the district council; and since all nominated or *ex-officio* members would be abolished, the justices as such having no longer any part in the Poor-law or sanitary administration of the country, it would be well to consider what means, if any, could be suggested to prevent the abuses likely to follow this transfer of power to a lower and less educated grade of society. Specific powers were conferred on the parish councils to utilise local water-supplies and to drain or cleanse offensive and stagnant waters. The relations between the future district councils and the boards of guardians, both of whom were to be wholly elective, were not very clearly explained; but the powers enjoyed by the present rural sanitary authorities, and by urban sanitary authorities not being boroughs, would devolve on the district councils, though they might delegate any of them to the parish councils. It was, however, a remarkable feature of the Bill, and showed how secondary a position questions of public health held in the estimation of the present administration, that the medical officer of health was not even once mentioned, while some of the amendments, if they became law, might seriously affect the position of these officers. It was, indeed, proposed that, as originally

recommended by Lord Playfair, the medical officers of health should become officers to the county council, and if by this means their number could be reduced to some two or three hundred with adequate salaries and debarred from medical practice, the efficiency of the service would be greatly increased, though in that case they must enjoy the like security of tenure and claim to compensation that a solicitor had when by accepting the post of clerk to a board he gave up the practice of his profession. At present the position of the medical officer of health, unless appointed under Section 18 of the Local Government Act of 1888, or Section 106 of the London Public Health Act, was most unsatisfactory. A return made in 1888 showed that 112 were absolutely at the mercy of their boards, more than 1000 were appointed from year to year, 230 had a tenure of from two to five years, and only forty-five—including but one officer to a large combined district, devoting his whole time to the duties of his office—were appointed permanently; while as to the salaries of those who were engaged in private practice, ten received less than £5, nearly 900 less than £50, 358 between £50 and £100, 275 from £100 to £200, and only twenty-five had salaries exceeding £200.

Reviews and Notices of Books.

JOURNALS AND REVIEWS.

The Medical Magazine. Vol. II., No. 5. November, 1893. London: Southwood, Smith and Co.—There is considerable variety in the contents of this magazine, the articles being for the most part brief, but none the less readable. The subject of Heredity and Disease is touched upon in a preliminary article of a series that promises to be highly instructive. Dr. Donkin writes upon Chronic Indigestion, his main contention being that far too wide a range is given to the term. Dr. Parkes Weber gives some interesting reminiscences of the late M. Charcot, which we would fain have seen further amplified; and Dr. Alfred Harvey shows what was the position of obstetric science in the sixteenth century in an analysis of the work entitled "The Birthe of Mankinde. By Thomas Raynalde, Phisician." There are also numerous articles on subjects of hygiene, on the army and navy medical departments, medical jurisprudence, diseases of children, and medical defence.

University Medical Magazine. Vol. VI., No. 2. November, 1893. Philadelphia: University of Pennsylvania Press.—The chief place in this number is accorded to an address by Dr. William Pepper on "Higher Medical Education: the True Interest of the Public and of the Profession." It was delivered at the opening of the four-year course of medical study in the University of Pennsylvania on Oct. 2nd, and it is, it is needless to say, framed in a lofty and liberal spirit. Among the original articles there is an interesting one on the Early Recognition of Tuberculosis, by Dr. L. Flick, in which it is maintained that tuberculous bacilli commonly enter the body by the alimentary tract.

The Journal of Physiology. Edited by MICHAEL FOSTER, F.R.S. Vol. XV., No. 3. Cambridge: Cambridge Engraving Co. September, 1893. This part includes the following articles:—1. Townsend Porter: The Results of Ligation of the Coronary Arteries; with a plate. 2. Vaughan Harley: Influence of Sugar in the Circulation on the Respiratory Gases and Animal Heat; with three plates. 3. F. Smith: Note on the Nature of the Dandruff and its Pigment from the Skin of the Horse; with a plate. 4. A. Haig: Does Uric Acid taken by the Mouth increase the Secretion of that Substance in the Urine? with a plate. 5. J. N. Langley: The Arrangement of the Sympathetic Nervous System, based chiefly on observations upon Pilo-motor Nerves; with three plates. 6. Ralph Stockman: The Physiological Action of Quinoline, Isoquinoline, and some of their derivatives.

The Journal of Anatomy and Physiology. Edited by Sir GEORGE HUMPHRY and Others. Vol. XXVIII., Part 1. October, 1893. London: Charles Griffin and Co.—The contents of this part are:—1. Havelock Charles: The Influence of Function as exemplified in the Morphology of the Lower Extremity of the Panjabi. This paper deals with the alterations in the bones consequent upon the squatting position maintained by this race. 2. David Hepburn: The Mammary Gland in a Gravid Porpoise. 3. Bertram Windle: Some Conditions related to Double Monstrosity. 4. H. J. Waring: Left Vena Cava Inferior. 5. J. Struthers: The Development of the Bones of the Foot of the Horse and of Digital Bones generally; and on a case of Polydactyly in the Horse. 6 Arthur Thomson: The Fourth Annual Report of the Anatomical Society's Committee of Collective Investigation. 7. George Dean and John Marnoch: A Case of Lithopædion. 8. A. M. Paterson: The Origin and Distribution of the Nerves to the Lower Limb. 9. Joseph Tillie: A Variety of Curare acting as a Muscle-Poison. 10. Joseph Griffiths: Observations on the Appendix of the Testis and on Cysts of this Region. 11. Robert Muir and William Drummond: The Structure of the Bone Marrow in relation to Blood Formation. 12. H. J. Waring: The Physiological Characters of Carcinomata.

CHRISTMAS BOOKS.

"OF making many books there is no end" was the comment of a literary monarch who reigned, not only before the days of copious publication, but even before there were such things as books proper. At the time when the phrase was uttered it only expressed the natural weariness of a prolific author, but now, when every week sees the production of books of all kinds on every conceivable subject, and of a dozen new novels and the re-issue of, perhaps, as many old, it has become a much quoted remark, being used as a reproach to our age for our facile production of printed matter. To Christmas books, however, Solomon's aphorism does not apply, for he went on to say, "and much study is a weariness of the flesh," while the essential thing in a Christmas book is that it should entail no study whatever, but be a source of amusement only, and not of weariness. And of these books there are not too many, considering the number of their readers. Everyone reads now, and education has enabled everyone to read a little critically. Again, the hurry and press of modern life—the feverish activity that has become a habitual mood with so many—make the necessity for peaceful recreation very urgent. Even our children—our much examined boys and girls—are often in a plight when the book that is actually best for them is not the work of useful information or exact knowledge, but the pleasantly written story or stirring romance, whose perusal will rest their wits while it tickles their fancies. So that we cordially welcome, if only for hygienic reasons, among the caterers for our amusement during the Christmas season—the season when young and old, learned and unlearned, all look forward to a little relaxation and a little slackening of the tightened bow—our novelists and story-tellers of every description.

Mr. G. A. Henty is perhaps the most industrious, as he is certainly the most popular, of all the authors who write with a special eye to a boy public. He is responsible just now for three excellent new books—"Rujub the Juggler" (one vol., Chatto and Windus), "The White Conquerors of Mexico," and "The Conquest of the Punjaub" (each one vol., Blackie and Son); and of these we fancy that "Rujub the Juggler" will be as widely read as any, for it is by no means a book for the younger audience alone, but will have its distinct interest for their elders. It is a simple story of the terrible Indian Mutiny and contains a really remarkable exposition of the qualities constituting courage and cowardice in the ordinary sense of these words. The hero, who is in the

army, suffers from a constitutional terror of noise (Mr. Henty does not intend to write scientifically, so that we do not comment upon his pathology), and this weakness places him, as can well be imagined, in a very unpleasant position when he is compelled to stand fire. How his infirmity leads to his disgrace, and how, with the assistance of the juggler, he redeems his character, secures the Victoria Cross, and marries the heroine after rescuing her from the infamous Nana, are all told with the ease of a practised pen and the detail of a bold imagination. In "Burgo's Romance" (one vol., Chatto and Windus) Mr. T. W. Speight, who emulates the methods of Wilkie Collins, has written a well-constructed sensational story of the regular Christmas number sort, as is suitable for the *Gentleman's Annual* for the year. It is easy to find fault with the story. For instance, there is a commercial ring about the high-born lady's letters, and on the failure of the male line the descendants of females do not inherit baronetcies. The will also, on which much of the story turns, is a little preposterous even if legally possible; but on the whole "Burgo's Romance" is an exciting and ingeniously constructed narrative. Among old favourites, "It is Never Too Late to Mend" and "Peg Woffington" (each one vol., Chatto and Windus) are sure of a good reception. Always setting aside *The Cloister and the Hearth*, the former is Charles Reade's masterpiece, and, though all the objections can be urged against it which can always be urged against stories written with a purpose, there can be no denying that it is an extraordinarily powerful and vigorous piece of work, and the enterprise that places it within everyone's reach at the modest figure of 6*d.* is worthy of all commendation. "Pastor Sang" (one vol., Longmans, Green and Co.) is a very different kind of book. It is an authorised translation by William Wilson—whose rendering of Ibsen's *Brand* was so successful—of the Norwegian drama "Over Ævne" written by Björnstjerne Björnson. It is a very weird piece of work, and students of the drama, as understood by the author, by Herr Ibsen, and by M. Maurice Maeterlink, should read it. It would be impossible to do the work any serious justice in a few lines, but the author's references to Charcot's *Leçons sur le Système Nerveux* and Richer's *Études Cliniques sur l'Hystéro-Epilepsie* show that he desires his study in nervous disease to be accepted as an accurate contribution. From the psychology of "Pastor Sang" to that of "The Ivory Gate" (one vol., Chatto and Windus) is a far cry, for Mr. Besant is as amusing and light in his touch as M. Björnson is the reverse. This is not his first excursion into the subject of nervous disease, but, whereas in *The Golden Butterfly* the aphasic Mr. Cassilis is only a small character, in his latest work the unfortunate victim of hallucination is the centre of the story, and around him and the complications arising from his irresponsible actions the whole of the fantastic and humorous book has been written. Dr. George MacDonald's story, "Heather and Snow" (one vol., Chatto and Windus), also makes an appearance in cheaper form. It is a simple narrative, poetical in language and serious in tone, as might be expected from the author of *Phantastes*, and will give every satisfaction to those who are able to appreciate these excellent qualities. Kristy is perhaps a little too good for this life, while Mrs. Gordon does not strike us as a very natural character. Mr. Robert Louis Stevenson's "Catriona," which, like the preceding book, is largely written in Scotch dialect (one vol., Cassell and Co.), will certainly be the most popular gift-book of the season. It is a sequel to *Kidnapped*, and, unlike most sequels, is not only equal to but better than its predecessor. It has all Mr. Stevenson's inimitable dexterity of expression, and some of the situations—notably the closing ones of Catriona's reconciliation to David and the exposure by Alan of the villainy of Drummond or Macgregor—do dramatic justice to their admirable treatment. "Catriona" should induce a run upon *Kidnapped*, for the two books decidedly gain by being read together, though each is a complete work. "The Pope's Mule" (one vol., T. Fisher Unwin) is the name of a comic little story which gives the title to a dozen *contes* by M. Alphonse Daudet. All twelve are charming, with humour and pathos deftly mixed. While we congratulate the translators upon their share in the task, we do not quite understand why these particular stories should have been chosen—save it be for their simplicity—to make up a volume for a children's library. Children may be pleased with them, but it certainly cannot be given to many children to appreciate the delicacy and high literary standard of M. Daudet's work; and there is not a child in the world who could follow the irony of "The Game of Billiards" or "The Death of the Dauphin." The stories of Ouida, which are bound up as a collection under the name of "A Dog of Flanders" (one vol., Chatto and Windus), are also designed to suit children, but it will be their elders who are most likely to enjoy the book. Everybody knows what Mr. Burnand has so wittily pointed out in his famous parody *Strapmore*, that there are two Ouidas. One is the author of stories full of fine imaginative passages and splendidly devised situations, all of which are marred by a ridiculous assumption of knowledge and a quite marvellous deficiency in taste. This is the Ouida who tells of Bertie Cecil, Cecil Castlemaine, Strathmore, Lady Dolly Vanderdecken, Granville de Vigne, and a score of like absurdities. But there is also a Ouida capable of telling a beautiful, simple, pathetic story, and when the simplicity keeps clear of mawkishness—as it does, for the most part, in the collection of stories to which "A Dog of Flanders" gives a title—her work is well worth reading, and we welcome its publication in popular form.

(To be continued.)

New Inventions.

COAGULATION TUBES.

WE have received from Mr. A. E. Dean, jun., 73, Hatton-garden, E.C., samples of capillary tubes made in accordance with the suggestions of Professor A. E. Wright. By means of these tubes observations of blood coagulability can be made for clinical and experimental purposes. From six to eight capillary tubes of equal calibre are required for a blood coagulability determination. Blood is aspirated into these tubes at, say, half-minute intervals, and "coagulation time" is determined by blowing down one tube after another at methodically increasing intervals. For clinical purposes the blood is obtained in the ordinary manner by a needle prick in the point of the finger. The condition of coagulability in the first tube may be tested at the expiration of from two to three minutes. If the contents of the capillary tube are found to be quite liquid at the end of that period a suitable interval (generally about a minute) is allowed to elapse before testing the tube next in series. If the blood in the tube is found to contain a shred of clot (best seen by blowing out the contents of the tube on to a piece of white blotting or filter-paper) a somewhat shorter interval is allowed before testing the next in series. When a tube is found blocked with clot, coagulation is deemed to be complete. "Coagulation time" is defined as the shortest time at which coagulation becomes complete in a sample of blood in a capillary tube of the standard size (0·25 mm. diameter). For accurate work the column of blood must always be of the same length (proposed standard length 5 cm.), and the capillary tube must have a temperature approximating to blood-heat. In order to provide for the employment of a column of the standard length the stem of the capillary

pipettes is divided into centimetres. The blood is filled into the pipettes up to the fifth division, and the column of blood is aspirated some little distance up the tube in order to obviate any desiccation of the blood at the orifice.

The tubes are easily cleaned by means of a fine wire. They are then washed out successively with distilled water, alcohol, and ether. When the ether evaporates the tubes are warmed in the hand or in an incubator and are then ready for use. In addition to these ordinary coagulation tubes Mr. Dean has, at Professor Wright's suggestion, made tubes provided with a mixing chamber. By employing these latter it is possible not only to study the effects of various additions upon the coagulability of a particular blood but also to repeat at any moment the classical experiments in connexion with blood coagulation. For this purpose it is only necessary to fill an aliquot part—say a sixth of the tube—with the fluid whose influence on coagulation it is desired to elicit. Into the tubes thus primed a column of blood of the usual length is introduced. Mixture of the fluid with the blood is effected by aspirating the contents of the tube into the mixing chamber and then immediately blowing them down in an unbroken column into the stem of the pipette. The coagulation time obtained with the mixed blood is, of course, compared with that elicited for the unmixed blood. The coagulation-inhibiting properties of decalcifying substances (such as soluble oxalates and citrates), or of additions of neutral salts, or of leech extract can readily be demonstrated by this method. To do this it is only necessary to prime the tubes (say up to the first division) with a 1 per cent. solution of oxalate of soda, a from 3 to 5 per cent. solution of citrate of soda, a from 20 to 25 per cent. solution of sodium chloride or magnesium sulphate, or, lastly, a decoction of a leech which has been sliced up after it has been killed by alcohol.

THE PRESENT SANITARY CONDITION OF FLORENCE.

BY W. W. BALDWIN, M.D.

IN a communication to THE LANCET of Dec. 19th, 1891, upon the Sanitation of Florence and Sir Douglas Galton's Report I stated that, in consequence of sanitary reforms, the death-rate of the city had decreased from 36 per 1000 in 1870 to 25 per 1000 in 1890. It was not then known, however, what steps would be taken towards carrying out Sir Douglas Galton's suggestions in regard to the further sanitation of the city. I am glad to say that much good work in this direction has been accomplished by the authorities since that report was made, more work is in hand, and it has been decided "to continue these reforms until Florence shall be above reproach in sanitary matters."

The new sewers have been pushed towards completion in the old drain quarters, and in good time they will entirely replace the old, shallow, irregular, leaky drains, which are more or less filled with deposit. The square section is being changed to the oval form, the ancient flat-bottomed house drains have been abolished, and well-trapped, air-tight, tubular metal or glazed earthenware pipes of prescribed pattern are being substituted. The same system has been adopted for the house waste water-pipes, and any communication between the two has been forbidden. Many wells have been closed, and the remainder will be shut up as soon as possible. A thorough and efficient house-to-house sanitary inspection has been established by law, and various illegal overflows from cesspits have been discovered and stopped. This necessitates a far more frequent removal of nightsoil than formerly, and at the same time ensures its free dilution with water. The old clumsy hand-pumping apparatus, miscalled *votatura inodora*, is being rapidly set aside by an efficient steam service which is practically inodorous. This new *macchina a vapore* has the further advantage of completely emptying the cesspits in two minutes, whereas the old machine required an hour or more to pump out the liquid contents, always leaving more or less deposit behind; in the meantime the whole neighbourhood was nauseated, if not poisoned, by the smells.

Many unsightly "common conveniences" have been removed, while the more conspicuous ones have been covered by decent modern iron structures. There is still room for improvement in this particular; but the authorities are hampered by the prejudices of an Italian populace who lack our northern standard of modesty, having been accustomed from time immemorial to satisfy nature's wants in public at any and every moment. No doubt the general free consumption of thin, sour native wine, which is strongly diuretic, may have had much influence in creating this canine habit. It is related that one sindaco of Florence, influenced by foreign complaints, commanded that all these too-convenient nuisances should be removed. He was besieged in his palace by a mob of enraged citizens, who perpetrated unspeakable things in the anterooms, threatening to return every day until their *luogi commodi* should be restored. This was done forthwith. The gallery from which the present water-supply is derived has been extended by 250 metres. The town rubbish deposits which existed in the vicinity of this extension have been removed and a sufficient tract of land in the neighbourhood is kept in grass and guarded from pollution, as was promised. Unfortunately, the long-continued drought which Florence had suffered, in common with the whole of Europe, caused scarcity of water, culminating in September and October, which necessitated great economy in its use. The public drinking fountains were only allowed to flow during a part of the morning and the sewers were not flushed. In consequence there were universal complaints of bad smells and lack of water, for which, obviously enough, there could be no remedy except abundant rain. Sensational reports were published in the London daily papers of a water famine in Florence, and it was claimed that its state of public health was very bad. Truly the smells were bad enough, and while no water famine ever existed a much longer continuance of the drought might have caused one owing to the fact that the reserve supply had been drawn off to cleanse the reservoir and renew the filters.

As regards the public health, probably owing to the extraordinary precautions taken by the authorities to cleanse and disinfect the city, added to the sanitary reforms which had already been carried out, the mortality returns for July, August, September, and October were the lowest ever recorded in Florence, the average death-rate during this time being 17·52 per 1000. That for November promises to be equally low. In spite of the very high death-rate in January and February caused by the influenza epidemic (above 30 per 1000) the mortality returns for 1893 will probably show the lowest average annual death-rate ever recorded in this city. At present, after copious rain, we have a great abundance of water, the sewers are well flushed, and the evil smells are no longer complained of. At last an exhaustive and admirable report upon the Garfagnana Springs, by a committee of competent engineers, has been accepted by the municipality, and as soon as the necessary capital can be raised this splendid undertaking will be inaugurated, which, when finished, will furnish Florence with above 40,000 cubic metres daily of the purest and most wholesome water. This source is absolutely unfailing. I purpose visiting these springs in the near future.

It has always been the custom, no doubt, to blame the municipality for any and every misfortune which may overtake a city, including great natural disasters such as earthquakes and drought. Otherwise what can be the explanation of the startling proposition made by the correspondent of a leading London daily paper to chain the Florentine authorities to the open sewers as punishment for evil smells undoubtedly caused by the drought? These gentlemen have certainly made a fair and praiseworthy record in sanitary reform under great discouragement and against bitter opposition since Sir Douglas Galton made his startling and unexpectedly unfavourable report. It is no holiday task to modernise a mediæval city with its vast fortress-like palaces and narrow, tortuous streets, and Florence is poor as well as old.

Florence, Nov. 17th.

ST. JOHN AMBULANCE ASSOCIATION.—The presentation of medallions and certificates to the students belonging to classes held in the City and Port of London, Bloomsbury, Islington, Highbury, and the North-east and East of London was made by the Duchess of Bedford at the People's Palace, Mile-end, on the 22nd ult. Nearly 400 students received awards.

THE LANCET.

LONDON: SATURDAY, DECEMBER 2, 1893.

THE General Medical Council up to the date of our writing is proceeding pretty briskly with its business. The Address of the President touched on a large number of subjects, all of which have to be disposed of in detail by the Council. The first was the bearing of Section 10 of the Ordinances of the Scottish Commissioners for Degrees in Medicine. This section is thought to enable a student who has studied the first year's subjects—viz., physics, chemistry, and biology—before passing the preliminary examination required by the Council, to count this year's study as one of the five prescribed. The Commissioners answer to this suggestion that the Ordinances are now fixed having passed through Parliament, but add that in their opinion they do not enable students to evade the Council's requirements. Another matter alluded to by the President was the desire of the Council, as far as possible, to meet the wishes of the medical and pharmaceutical authorities in India and in the Colonies by proceeding to make preparations for a new edition of the British Pharmacopœia, which will be wanted in about two years from the present time. The authorities in India wish to be able to use certain indigenous drugs in place of others that have to be imported. A full consideration of the views entertained in India and the Colonies was promised by the President on behalf of the Council. It is anticipated by the President that much valuable and practical information from these sources will be available, and that these will tend to make the Pharmacopœia not only a national one, but an Imperial one. In dealing with this subject, Sir RICHARD QUAIN paid a just tribute to Sir CHARLES LENNOX PEEL for his great interest in all matters connected with the Medical Council. Applications for the recognition of the degrees of the University of Calcutta, the Punjab University, the Medical College of Ceylon, and the University of Adelaide will be submitted to the Council. Up to the time of our going to press no educational subjects had engrossed the attention of the Council. One subject of reference in the President's address has been disposed of by the Council—a communication from the Royal College of Physicians of Ireland, enclosing a copy of its Charter and claiming the right to grant a qualification under the Medical Act of 1886, entitling the licentiate to practise medicine, surgery, and midwifery. It was natural that the Irish College should bring the matter before the Council; but its claim to confer a complete qualification is a new one, and has never been acted on by the College itself or by the public departments. Sir WILLIAM TURNER proposed and Sir DYCE DUCKWORTH seconded a proposal to remit the letter of the Registrar of the Irish College and the copy of the Charter of that College to the legal advisers of the Council for an opinion. This would have been an easy way of stepping, at the Council's expense, into a new and ambitious position, and of acquiring claims never made or acknowledged before; but the Council demurred to doing the work of the Irish College, and on the motion of Dr. GLOVER, seconded by Mr. TEALE, resolved that it was not the duty of the Council to undertake an investigation to define the powers of the Royal College of Physicians of Ireland.

Dr. RENTOUL'S communication with regard to diplomas in obstetrics also engaged the President's attention. Dr. RENTOUL seems quite right in objecting strongly to the Obstetrical Society, or any other unauthorised Society issuing what it is pleased to call a "Diploma in Obstetrics." But, as the President said, the pronouncement on the main subject already made by the Council is clear, decided, and expressive. The subject will no doubt be carefully considered, and we trust the Council will have no difficulty, while maintaining its oft-expressed views, in securing that all women, however trained, shall only be allowed to act under strict subordination to the medical profession, and that in every district a medical man shall be publicly appointed and available for the purpose. One of the real ends of training women is to teach them when labour ceases to be natural, and when it is their duty to appeal to the medical profession.

The Council has agreed that Sir WALTER FOSTER and the Treasurer should continue to act as a committee to assist the President and the Executive Committee on all questions of principle or practice arising out of the penal clauses. It is certain that the work of the Council in connexion with its disciplinary functions is not done satisfactorily. We cannot profess to be content with the present state of matters. It scarcely seems as if the subcommittee named were sufficiently representative; but it will have every credit for good work done, and we can only hope that in future the work will be carried out in a more systematic, judicial, and effective manner than heretofore. On Wednesday the Council was occupied all day with penal cases. Two names were removed from theRegister of practitioners, whose cases had been raised at a previous meeting, one having been proved guilty of forgery and the other of wounding with intent to murder his wife. In the latter case an attempt was made, but did not succeed, to attribute the crime to epilepsy. It certainly appeared that the Court had not taken this view of the case; but there seemed some grounds for the Council investigating a theory so possible and so painful. The name of a third practitioner was removed from the Register on a charge of covering. The facts were peculiar and somewhat mysterious; but his relations with an unqualified assistant were certainly unsatisfactory, and he admitted having signed certificates, including vaccination certificates, in cases which he had never even seen. There is still much important work before the Council, and it is doubtful whether it can get through it this week.

A QUESTION was recently asked in the House of Commons as to the reason why a soldier in India who had struck and apparently killed a punkah-wallah for neglect of duty had merely been punished by the infliction of a fine, as the man struck had presumably died in consequence of the injury which he had received. The reply given was that the inquest had shown that the man had died from a rupture of the

spleen. We are without further information about the affair which is chiefly of interest to us from a medico-legal standpoint. It will appear strange to those of the medical profession who are unacquainted with the literature on the subject that a man should not receive the full penalty which the law imposes for manslaughter when the result of his action has been to cause death by rupture of the spleen, instances of which are so rare in this country and are usually the consequence of severe and direct blows in the splenic region. In some parts of India, and in those countries where ague is common, most natives are the subjects of enlarged spleen, and a comparatively slight cause is sufficient to bring about a fatal rupture. Opinions have been divided as to the possibility of a rupture taking place without traumatism, in a spontaneous manner, and as the result of engorgement. We have sufficient evidence in favour of idiopathic rupture to enable us to affirm that it can take place. Mr. LEITH ADAMS related the case of a native in India, suffering from enlargement of the spleen due to ague, who became suddenly faint on sitting down and died. BARRALLIER published the case of a young man aged nineteen who had recently suffered from ague and was found dead in bed; and COLLIN that of a soldier in whom sudden rupture of a malarial spleen occurred when he was sitting up in bed. In two out of twenty-nine cases of simple rupture recorded by the late Surgeon-General COULL MACKENZIE there was no evidence of strain or injury. Dr. LIDDELL, M. GARGARU, DE VIGLA, and others have met with somewhat similar instances. As Dr. PLAYFAIR wrote in the *Edinburgh Medical Journal* in 1857, "A person with an enlarged spleen holds on to life by a very slight thread, for a blow which would not injure an infant may in him cause death. I have known it produced by a slap with the back of the hand, a push, a slight fall, and in one case the cause appeared to be a contraction of the abdominal muscles." In fact, anything which produces a sudden contraction of the abdominal muscles is sufficient to cause a rupture, and it is evident therefore that in the case about which the question was asked in the House of Commons the rupture may have taken place as a result of the sudden exertion made by the patient when rudely awakened and not as a result of the blows, which do not appear to have been particularly severe. It is of great importance that those engaged in the administration of the law in our numerous colonies should be acquainted with this fact, well known in India, otherwise some diligent new administrator of justice may unintentionally and in perfect good faith punish with undue severity the unwitting author of an accident such as this. If a man throws a grain of mustard seed at another, who immediately sits down and dies; if a boy fights a man and the man dies; or a friend playfully, but with a fatal result, digs another in the ribs: are the survivors to be convicted of manslaughter? Such cases have occurred, but were fortunately regarded in their proper light. Dr. MARKHAM SKERRITT in 1878 referred to an incident which took place in Ceylon, in which an officer was placed on trial for manslaughter, a coolie servant having died from rupture of the spleen after his master had struck him. The officer escaped with difficulty on payment of a fine, but the verdict excited much comment. The extreme rapidity with which death follows the rupture is quite startling—in fact, the occurrence is exactly the same as if the sac of an aneurysm of the abdominal aorta had given way through a large opening into the peritoneal cavity—and the person struck is dead within a quarter of an hour and sometimes less. Occasionally life is prolonged for a day or two, but rarely longer. Surgeon-General COULL MACKENZIE wrote that one of his cases died eighteen hours afterwards, but that 68·9 per cent. died within half an hour of the occurrence. Death takes place from hæmorrhage and the shock attendant on it, and the only chance of saving the patient depends on the possibility of arresting the bleeding. Perhaps some patients may be saved by abdominal section with excision of the organ, or by plugging the wound in it; but the removal of a spleen for hypertrophy due to malaria has not been a successful operation under favourable conditions, and plugging of the rent with aseptic gauze, although it has been successfully carried out for rupture of the normal spleen, is not likely to succeed when the organ is large, very vascular, and easily torn. The possibility of such treatment could hardly be entertained were it not for the advantages offered by saline infusion for the purpose of replacing the lost blood and so bringing the patient into a condition permitting of surgical interference. The application of a ligature to the vessels of the spleen would not be possible in many cases on account of the size of the spleen and the difficulty in reaching the pedicle. It would probably lead to gangrene of the organ if it were successfully applied, judging by WYMAN'S experiments on dogs. The only condition justifying such an attempt would be the presence of adhesions to the diaphragm or parts around it through which blood could be carried. During the last session of the Clinical Society a case in which this treatment was tried was brought forward by Mr. BATTLE; but the spleen was apparently normal, though a little enlarged, and the adhesions were dense. The case was remarkable in another respect as showing the large amount of saline infusion that can be given with benefit, four pints having been administered before operation in order to render the patient capable of undergoing it, and five during the operation. Hæmorrhage was arrested, and the patient rallied well, but death followed from peritonitis on the sixth day. The disease which has most frequently produced the enlargement preceding the rupture is, as we have said, ague, and rupture has occurred within a short time of the first attack. Dr. HEDDLE met with the largest number of cases in India at the termination of the monsoon. Other diseases, such as typhoid fever, typhus fever, relapsing fever, and cholera, may be the cause of enlargement of the spleen, but the enlargement in these cases is rarely followed by rupture.

THE question of how to dispose of the dead is one which cannot be avoided, and, like many other questions affecting the social economy of our ever-increasing population, it is one which tends to become more pressing. While all are agreed that, in spite of much improvement which has taken place of late years, our methods of burial stand greatly in need of reformation, one school of reformers urge that burial of all kinds is so fraught with danger to the living that it ought to be abandoned in favour of cremation, whilst another school teach that burial scientifically conducted is not only no source of danger but a positive source of benefit to the survivors. Thanks to the anti-cremationists and cremationists, the subject has been

most thoroughly ventilated of late years, with the result that the public have come to regard the question with a very tolerable amount of judicial calmness, and we believe that they are ready, under proper and temperate guidance, to gradually abandon many of those oppressive funeral customs which have been bred by ignorance and superstition. The fact that a very animated debate on this subject took place at the Church Congress at Birmingham, and that, although the bulk of the meeting was apparently in favour of burial, a considerable number of well-known clergymen showed their readiness to discuss and even advocate cremation, must be taken as evidence that there is some likelihood of the purely sanitary and scientific aspects of the question obtaining a hearing.

That in the most recent contest between the advocates of earth and fire the former came off best is very largely to be attributed to the fact that the cremationists, in their eagerness of advocacy, have fallen into the error of over-statement and have made allegations as to the evils attendant upon burial which we think they would find it difficult to substantiate before a jury of scientific men. In his "Essays on Rural Hygiene" Dr. POORE has directed attention to some economic and sanitary aspects of the question which clearly cannot be neglected, and he insists that if a dead body is to be disposed of both quickly and harmlessly decomposition should be rapid and the products utilised, and that by systematically planting the grave we ought to ensure that the nitrates formed by the dissolution of the body will be made available for the use of plants. The systematic planting of the grave might, we think, be, as it is in Turkey, an integral part of the funeral ceremony; and it is hard to conceive, as suggested by Dr. POORE, a more beautiful or poetic memorial of the dead than a vigorous tree. But no effort should be spared to simplify funeral rites and to make the act of burial a cheap one, for it is a notorious fact that burial as a method of disposing of the dead is efficient in proportion to its simplicity. Deep graves, vaults, solid coffins, and large tombstones all serve to hinder nature in her beneficent work. If a body is simply "laid in the earth" the fees should be little more than nominal. As for all the extras, which are the principal causes of burial difficulties, we sincerely hope that undertakers, cemetery companies, and the clergy will charge the highest fees possible, in order to hasten the time when the disposal of the dead shall be so simplified that its commercial aspects will be of very little account.

Annotations.

"Ne quid nimis."

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the council of this fund was held at the Mansion House on Friday, Nov. 24th, when the report for the current year was passed and other business was transacted. It was then appointed that the next annual meeting of the constituents of the fund should be held on the 19th inst., and the names of Lord Knutsford, Mr. C. T. Ritchie, Sir Savile Crossley, Alderman Sir Stewart Knill, Sir William Broadbent, and Mr. John Mackrell were adopted for recommendation to the general meeting as additions to the council. A further resolution suggests that Sunday, June 10th, should be observed as Hospital Sunday next year. The least satisfactory feature of the report is the announcement that the contributions made this year fall short by £2000 of the sum contributed in 1892. Against this disappointing result it is no sufficient counterpoise to set off the fact that the number of contributing congregations was larger in 1893 than in any previous year, though this is, so far as it goes, satisfactory, for it indicates that the deficiency in the collection should be attributed rather to straitened circumstances than to any falling off of the public interest in this great and good work. The very pronounced trade depression of the past year has had a marked effect upon this, in common with other charities; and although it is much to be regretted that the resources of the hospitals should be crippled at a time when the demands upon them are certainly no less numerous and no less pressing than at any other period of their history, yet it may fairly be expected that with returning prosperity the flow of charity will be restored and the efficiency of those institutions which depend upon the Hospital Sunday Fund will be renewed. With this object a strenuous effort should be made by the supporters of the movement to secure an improvement in next year's collection. From every part of the country the record of 1893 is one of falling off, and it may well be considered whether a combined effort could not be made to diffuse through London and the provinces a quickened interest in the Hospital Sunday collections of 1894.

NUISANCE FROM A SEWER.

THE judgment of Mr. Justice Romer in the action of Stretton's Derby Brewery Company against the Mayor of Derby, deals with a very difficult question, and although it deals with it for the purpose of the action upon clear principles it does not deal with it exhaustively. The facts of the case, so far as they are material, seem to have been as follow. The corporation of Derby, acting by the town council as the urban sanitary authority of the borough, constructed many years ago a sewer which passed under the road in which the plaintiffs' brewery is situated. The brewery was erected some years afterwards and the plantiffs' predecessors in title made connexions with the sewer for the drainage of their premises, the connexions being in due course approved by the sanitary authority—the defendants in the present action. At that time, and for some time afterwards, the sewer worked satisfactorily and was fully equal to its duties, but with the growth of the neighbourhood those duties were, of course, increased from time to time, and at present the sewer is no longer capacious enough to carry off the storm water resulting from heavy rain in addition to its ordinary burden of sewage matters. From this cause flooding of the low-lying parts of the brewery occurred in June, 1891, in May and in June, 1892, and again in July last. It was assumed for the purpose of the judgment that such heavy rains and the consequent flooding of the sewer were circumstances which the sanitary authority would be bound to take into consideration, and that it might therefore become their duty to make further provision for the needs of the district in this respect; but in the construction and management of the existing sewer the learned judge held that no negligence upon the part of the sanitary authority had been shown. The nuisance complained of became possible only by reason of the communications made between the plaintiffs' premises and the sewer for the plaintiffs' benefit. If, therefore, the management of the existing sewer were free from reproach, the invasion of the plaintiffs' premises by the sewer overflow could not be treated as a trespass. With the management the Court found no fault. The question of negligence was thus restricted to the question whether the sanitary authority had unduly delayed

to carry out necessary extensions of the sewer system of the district. Upon this point the evidence was that more than a year ago the defendants had considered the question of constructing a new sewer, and had consulted experts of great eminence who were to report as to what would be best to be done in existing circumstances. This report, although expected very shortly, had not as yet been sent in owing to the magnitude and difficulty of the case. In these circumstances the learned judge exonerated the corporation from the charge of negligence upon this ground, and as a consequence found that no wrong had been committed, and therefore no right to relief had been made out by the plaintiffs in the action. The grounds of this decision are, as we have said, perfectly clear, and we have no fault to find with the principle laid down that, in a case like this, it is necessary, in order to fix responsibility upon a public body, to show some non-performance or some negligent performance of their public duty; but the point which is left in very perplexing uncertainty is this: when does the delay in the performance of a public duty become of itself a case of negligence or non-feasance. No doubt the point is one of great difficulty, and for that very reason it would have been interesting and important to have the principles which should be applied to such a discussion elucidated by the opinion of a judge so clear-minded and so gifted with the faculty of accurate statement as Mr. Justice Romer. The only conclusion deducible upon this point is that in the view which the judge took of this case the sanitary authority acted just in the nick of time. That they bestirred themselves none too soon is made plain by the fact of the serious damage which Stretton's Brewery has suffered from the flooding of the sewer. The judgment now recorded has exonerated them from the charge of having delayed too long; but it would be hard to deduce from these scanty materials any serviceable rule or guiding principle for the assistance of other persons placed in a similar position.

ENGLISH AND GERMAN OPHTHALMIC SURGERY.

IT is, we presume, part of what the Americans would term the "sheer cussedness" of human nature that what is within easy reach of people has no value in their eyes; they most desire that for which they have to pay most, either in the way of money or the sacrifice of convenience, time, or trouble. The correspondence that has been recently taking place in the *St. James's Gazette* upon the subject of German ophthalmic surgery as compared with that of this country may be cited by way of illustration. The British public must have its periodical fad of some sort, and the superiority of German ophthalmic surgery is one of its latest manifestations. It goes without saying, of course, that there are many very eminent and highly skilful ophthalmic surgeons in Germany, but so there are in England. In the science and practice of every branch of medicine and surgery no country enjoys any monopoly of skill and talent. The import or export of the results of scientific discovery and thought cannot be prevented or impeded like that of merchandise by any laws of protection. There is the freest interchange of scientific knowledge between this country and the Continent, and any step in advance, whether it be practical or theoretical, that is made in England to-day is discussed, tested and followed in Germany or France to-morrow, and *vice versâ*. Patients occasionally go to some eminent German practitioner and are cured or relieved after having failed to derive benefit, perhaps, from some equally eminent practitioner in this country, but then the exact opposite sometimes occurs. The sole difference that exists is that the first instance becomes talked about and the other does not. It is only another illustration of the little honour which the prophet has in his own country. All this is as perfectly well known, of course, to our German colleagues as it is to ourselves. As to the possession of any exclusive skill or scientific knowledge by any country or any individual, it is simply a myth and has no foundation in fact. Just at present there seems to be a tendency on the part of some people to run into a fulsome and ridiculous advocacy of the superior merits of one nation, and an altogether unfounded and unjust depreciation of those of their own, but this will have its day and cease to be. It is the same in everything. Some Continental Power obtains a brilliant military success, which is the result of a number of factors of which what is called luck or accident forms one, and thereupon the cry at once is to alter everything in our own army and to mould it to the new pattern; and—to come down to smaller matters—patients often go abroad and are cured by operation or otherwise of some affection which is every day treated at home with just the same measure of success and nobody hears anything about it, whereas the patients in the former case are peripatetic advertisers of what seems to them to be an astounding illustration of a superior skill which reflects vast credit on themselves for having discovered.

BODILY INJURIES AND MEDICAL EVIDENCE.

A CERTAIN professional interest attaches to a case of assault which was recently settled in the County Court at Grimsby. The suit in question was the outcome of a quarrel between two men, which resulted in the plaintiff losing two front teeth by a blow given by the defendant, and receiving from him the sum of £20 in compensation. Medical evidence was employed somewhat freely in this instance. Questions of a like sort, relating to the responsibility for personal injury, are indeed constantly presenting themselves for the consideration of practitioners, and exercise sometimes not a little their professional judgment. The luxuriant growth of accident-insurance companies of late years has done much to render them more common than formerly. Happily we can add that the general use by such institutions of printed forms worded so as to elicit only such information as is requisite for proof of the cause and character of the injury has considerably simplified the methods of procedure employed in such cases. We must not forget, however, that there is another class of injuries to the person for which insurance makes no provision—namely, those which, like the example already quoted, come before us in an essentially medico-legal aspect. It is with reference to these especially that a medical referee, if not duly careful to avoid all biased expressions of opinion, may easily commit himself to embarrassing statements as to motive or accountability which had been best avoided. There is in dealing with all such matters one simple rule, already admitted as a canon for professional guidance, but far too easily forgotten—namely, to be guided solely in the formation of opinions by actual physical appearances, and to regard all mere statements as constituting for the medical observer only so much irrelevant matter.

WOOLWICH AND SANDHURST.

WE referred last week to the recently published reports of the Board of Visitors upon the military educational establishments at Woolwich and Sandhurst, and we need make no apology for considering them a little more in detail. The first thing that strikes us is an absence of the name of any army medical officer in the list of visitors. The Royal Military Academy at Woolwich and the Royal Military College at Sandhurst are large educational institutions, and contain a great number of cadets, in addition to the staff and servants. Matters connected with the hygiene, physical health, and well-being of these inmates surely stand in need of some consideration as well as questions of administration and discipline, and of military training and education. As a matter of fact these are reported upon, and in some respects

adversely reported upon, on the present occasion, by the Board of Visitors, which is almost exclusively composed of military officers of high rank. It seems to us that there should, as a matter of principle and on public grounds, be a medical and sanitary representative of rank and experience on a board which has to report upon health, food, hospital accommodation and arrangements, and upon hygiene generally. As regards the remarks on the extravagance of the messing arrangements at the Royal Military College, Sandhurst, we will only say that if these remarks be well founded, as no doubt they are, it seems to be superfluous to inculcate retrenchment and reform in this and similar directions in the army generally. If an extravagant system of living is sanctioned for the cadet in a military institution it is not likely to be altered later, when he is his own master; and it is not to be wondered at that the service journals should contain so many complaints about the expense of living in the army. Of course young and growing cadets require to be supplied with a thoroughly good and wholesome diet; but the board says that the system under which the mess is conducted is unduly extravagant and includes expenses which they are strongly of opinion should not be sanctioned. There are other matters also to which we need not advert, as they scarcely fall within the province of medical journalism; but we may allude to one thing with regard to inspections by a board of visitors. The board, we presume, goes over a building and makes its inspection in the presence of, and accompanied by, the staff of the College. This is scarcely the way to ascertain whether there are any real and well-founded sources of complaint. We should add that the health of the cadets at both Woolwich and Sandhurst is reported to have been good. The board reiterates its opinion that the hospital accommodation at the former place is quite inadequate in every respect; its construction renders it unfit for a hospital, and no rearrangement could make it comply with modern sanitary requirements.

INTERNATIONAL MEDICAL CONGRESS, ROME, 1894.

PAPERS to be read before the Congress should be announced not later than Jan. 31st, 1894. With the title of the paper a very short abstract containing the conclusions arrived at should be sent to the Secretary-General, Professor Maragliano, at Genoa. The abstracts will be printed and distributed to the Members of the Congress. The programme will contain the titles of all papers previously announced, including those which have been published elsewhere since the postponement of the Congress. Papers announced later than Aug. 31st, 1893, will be marked in the programme with an asterisk. The railway companies maintain the reduction of fares conceded prior to the postponement of the Congress. The reductions will be available between March 1st and April 30th, 1894, inclusive.

From Rome, under date Nov. 26th, our own correspondent writes: "Four months now divide us from the opening of the Congress, and the provincial 'comitati' throughout Italy are appealing to the profession within their respective spheres to put itself *en règle* so as to qualify for attendance at the sittings. The Milan 'Comitato,' for instance, announces through its president that the opportunity for intending 'congressisti' to inscribe their names will cease at the end of January next, by which date the ticket of association, costing 25 francs (£1), must be procured from the secretary of the 'comitato' referred to, as well as the additional ticket, costing 10 francs, to enable the wives or next nearest relatives of the 'congressisti' to witness the proceedings or enjoy the privileges (excursions and such like) of the occasion. To each provincial secretary (it is also intimated) the intending 'congressisti' within that province must address himself for what information he requires as to the papers he may propose to read before one or other of the nineteen sections into which the programme of the Congress is divided. Immediately on receipt of such communication the secretary will impart its tenour to the president of the 'comitato' in question, and this latter functionary 'avrà cura di procurarne l' iscrizione all' ordine del giorno' (will see to the entering of the applicant's paper in the order of the day), and with this view will put himself in direct correspondence with the president of the committee of the particular section into whose proceedings the paper will naturally fall. It is added that the day after which no announcement of any paper can be received by the secretaries of the provincial committees has been postponed till Jan. 31st, and that, together with such announcement, a brief *résumé* of the subject or tenour of the paper referred to and a summary of its conclusions must be sent in. The above *modus operandi*, now in working throughout Italy, is being followed by the various committees, central and provincial, in Europe, the majority of which, I understand, have already put themselves *en règle* with the organising committee in Rome for participation in the business of the Congress, which commences, as I have stated, on March 29th next."

BACTERIOLOGY OF OZÆNA.

NUMEROUS researches have been made from time to time regarding the bacteriology of ozæna. The most important work that has hitherto appeared is by Abel of Greinwald. E. Fränkel also made some investigations on the subject, and he succeeded in isolating four species of microbes. Löwenberg, from his experiments, considered that this condition was due to a diplococcus. Abel found a short bacillus, with stunted ends, which was sometimes surrounded by a capsule. He succeeded in growing it on various cultivating media, and it proved rapidly fatal when inoculated on white mice. Most observers have described an encapsuled form. Dr. Laurent[1] examined the mucus surrounding the crusts near the nasal orifice of patients suffering from ozæna and always found the same form of microbe. It consisted of a micrococcus arranged in pairs or sets of four cocci, occasionally in chains; when cultivated on gelatine plates small circular colonies appeared having a mucoid appearance. In addition to this organism Dr. Laurent frequently found a long, narrow bacillus. Several observers maintain that this microbe is identical with Friedländer's bacillus, but it differs from the bacillus described by Abel in being less virulent when inoculated on white mice and in the appearance of the colonies. After a consideration of the above-mentioned researches the following conclusions may be drawn. That although ozæna is probably due to a micro-organism, no research has conclusively proved that the pathogenic organism has yet been isolated. Many organisms have been isolated, but whether these are causes or concomitants of the disease has not yet been determined.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY.

WE are interested to observe that the report issued for the last financial year by the directors of this society bears testimony to the popularity of a scheme of life assurance which is designated "assurance at prime cost." This name is not very descriptive of the thing intended to be defined by it, but the scheme itself has merits which we have on former occasions brought under the notice of our readers. Stated briefly, it consists in making an estimate upon the footing of the past experience of the society of what its bonus in future is likely to be, and then fixing a rate of premium to be charged with reference to that estimate; that is to say, instead of insisting upon the ordinary tabular rate of premium the company accepts a premium reduced by an amount approximating to that which

[1] L'Union Médicale, Oct. 21st, 1893.

its estimated bonus would yield if distributed by annual payments to the assured. This deduction is estimated at 25 per cent. of the premium, and is made a charge upon the current bonus to be liquidated by that bonus when it becomes due in the ordinary course. In this way a very low-rated premium table is constructed, and the policy-holder is enabled to secure from the outset a comparatively large return upon his premium outlay. This very thrifty form of life assurance contract was devised in response to the claim which was put forward in these pages on behalf of the medical profession for a life assurance policy pure and simple which should serve to economise premiums to the utmost, and enable a professional man to make the most ample provision for dependants, in the event of his premature decease, which his income will permit. The plan of this Society meets this demand in a very large measure, and we are not a little gratified to learn from the report that the suggestions made first in these columns have borne excellent fruit, and that the permanence of an excellent innovation is assured by the extent of the popular favour with which it has been received.

THE VACANT LANCASHIRE CORONERSHIP.

BY the death of Dr. Gilbertson, which was announced in THE LANCET of last week, a vacancy occurs in the office of coroner for Preston and for the Amounderness and Leyland Division of the County Palatine of Lancaster. We understand that Dr. James Rigby of Preston is a candidate for the vacant office, and he has qualifications which peculiarly fit him for the position. He is a medical man of distinction in his profession, and as it has come to be recognised that gentlemen who have a knowledge of anatomy, surgery, and medicine are most suitable for the office of coroner it is very probable that Dr. Rigby will be successful in his application for the post. We need hardly say that we wish him every success. Lancashire is a large county and has many coroners, but so far only two have been members of the medical profession. The electors now are the County Council, and we sincerely trust that they will not adopt what would be a retrograde step in electing a solicitor to the vacant office, more especially as the late coroner appears to have discharged the duties of the office in a most efficient manner.

SENTENCED TO THE SICILIAN MINES.

IN this country we have of late years come to recognise and to admit the existence among us of much that is cruel and barbarous in the home life and the occupations of children. A comprehensive Act and a protective society have been the practical outcome of our awakened intelligence, and the experience of several years has proved the justice of, and the necessity for, their institution, as well as the success of their operation. A part of this admission applies also to the domestic life of neighbouring States. We may quote on very recent authority the case of Italy. Reports on this subject must have been noticed by most readers of the daily press, which lately contained graphic accounts of the "white slavery" endured by children employed in the Sicilian sulphur mines. The hardships and ill-usage, the hunger, labour, and malaria to which they are subject in consequence of their work—nay, of their daily and nightly life underground—are marked in their stunted and shrunken bodies. The iniquity of their suffering, sufficient in itself to call for indignant condemnation, is in some instances aggravated, if possible, by the fact that it is illegal, the children being only eight or nine years old, and, therefore, under the age required for work in the mines. As if by way of apology—for the statement does not amount to exculpation—we are told that the Minister of Agriculture has sent orders that the labour of children in Sicilian mines shall be more humanely conducted in future. A wise and a merciful order, truly, but how far useful? This, we take it, will depend upon the practical evidences of zeal and earnest purpose which accompany the official recommendation. It may be dismissed as being mere empty breath, and as such it will certainly be treated by the "slave-holding" miners—who are, moreover, the owners of the children by actual purchase—unless it is accompanied by specific regulations, and by such arrangements for inspection as may and will enforce its claims to obedience. In the circumstances, and in view of the fact that there can hardly fail to be found, if sought for, ample justification on other grounds, it is a question well worthy of consideration by the Italian Government whether a voluntary organisation, similar to the society with which we are here familiar, if instituted and supported by a suitable enactment, would not in turn ably second its efforts and divide its responsibility in dealing with the cruelty which evidently besets child life in Italy as well as in Great Britain.

THE EPIDEMIC IN THE TEES VALLEY.

WE are glad to learn that the official report issued by the Medical Department of the Local Government Board on the epidemic of enteric fever in the Tees Valley has been reduced in price. It was at first issued at 15*s.* 10*d.*, and the addition of the odd pence gave the idea that its selling value had been carefully calculated; but, just as the price of the report on small-pox in Sheffield was reduced when complaint was made, so now it has been found quite practicable to reduce the price of the Tees Valley report to 10*s.* 6*d.* This report will doubtless become historic in the annals of mischief resulting from the use of sewage-polluted but filtered river waters, and such reports ought not to have fancy prices attached to them. If anything, they should be sold or distributed at a loss, for the country gains to the extent that such work produces educational results.

METHOD OF PREPARING HISTOLOGICAL SPECIMENS OF THE COCHLEA.

KATZ[1] recommends the temporal bones of man, which have been kept in spirit or in ½ per cent. of chromic acid or in ½ per cent. of chromosmic acid, should be decalcified by treatment with a solution containing 30 per cent. of hydrochloric acid and about 1 per cent. of palladium chloride. When decalcified, the preparation is to be washed and immersed in 90 per cent. spirit. After a few days sections can be made with a razor, and these are to be placed in absolute alcohol. After lying for twenty-four hours they should be transferred to xylol or to oil of cloves, and ultimately mounted in Canada balsam, when they will be found in the course of a day to be perfectly transparent.

THE PREVENTION OF CRUELTY TO CHILDREN.

IF we know anything in connexion with the lives of children in this country it is that the measures of restraint and punishment enacted by the Government four years ago for the prevention of their cruel maltreatment have been fully justified by subsequent experience. The Duke of Fife, who presided at the second annual meeting of the National Society for the Prevention of Cruelty to Children, held in Manchester last week, spoke upon this subject with appropriate force and directness. There was no need to specify the various and aggravated forms of cruelty with which, thanks largely to the Society's agents, we have now become familiar. It was enough that during the brief period referred to 34,000 offenders had been detected and dealt with, while no fewer than 90,000 children had been protected. The operations of the Society now extend to about 20,000,000 of the population of the United Kingdom. We would remind

[1] Archiv für Ohrenheilkunde, Band xxxiv., p. 215.

our readers, however, that its operations do not consist of mere warnings, protests, or even of rescue operations conducted without reference to a definite plan or to cognisance of specific abuses. While cruelty in whatever form and under whatever conditions it makes its appearance is its great and primary object of attack, the Society remembers that the monster must be attacked at its main fountain-heads by vigorous methods. In proof of this we need only refer to the discriminating vigilance it has always exhibited in dealing with the evils of baby-farming—a crime which will shortly, we trust, be drastically and effectually treated by Sir Richard Webster's Bill—and of infant insurance, with the registration of stillborn children, and with the responsibility of drunken parents. On such particular grounds as these, in addition to its general and admitted efficiency, the Society worthily claims the interest of all rightly and practically minded persons.

"THE AILMENTS DAILY SUBMITTED TO CHEMISTS."

THE *Provincial Medical Journal* of Nov. 1st publishes the following advertisement, under the heading "The British and Colonial Druggists Series":—"Minor Ailments, crown 8vo, cloth, 5s. Comprehensive directions for treatment by the most modern methods of the ailments daily submitted to chemists. Edited by an experienced medical practitioner." We venture to express surprise that a medical man should be found to facilitate a false practice by chemists, contrary alike to the public interest and to the interests of the profession. No wonder that chemists prescribe when they are so helped, and when a "medical" journal gives prominence to such books.

DEFECTIVE NURSING ARRANGEMENTS IN THE LURGAN WORKHOUSE.

DR. DARLING, the medical officer of the Lurgan Workhouse, having made a report to the guardians of the very unsatisfactory nursing arrangements of the workhouse, which were chiefly carried on by infirm and incapable pauper inmates, it was agreed to further consider the matter after a report had been received from the committee. On the same occasion Dr. Darling was called upon to account for having called in two medical men to assist him in a case of ovariotomy which proved successful. The scanty recognition given to Poor-law medical officers, and the difficulties they labour under in the performance of their duties, are by no means encouraging.

A PUBLIC MEMORIAL TO QUACKERY.

IT is well—we cannot say that it is necessary—that the works of distinguished men, though essentially more enduring than monumental brass, should also be marked by the visible tribute of sculptured memorials; but such homage is too great a thing to be lightly thrown away, too fine for spurious imitation. It is true that sentiment—and that often of a debased quality rather than intelligent discrimination—is not uncommonly allowed to govern the issue in such matters. Thus it happens that many great men, unhonoured by the clamour of an idolatrous clique, have closed their fruitful and laborious lives in forgotten quiet, and thus we may also explain the posthumous worship of some who were to them as counterfeit resemblances. A hundred years ago John Hunter died in London, poor, and obscure enough in his burial at St. Martin's-in-the-Fields though illustrious for ever in the annals of surgery. Not until nearly seventy years later was he granted the tardy honour of burial in our national Abbey, and then only at the instance of another student of science. It is probable that we shall long continue to scan the thoroughfares in vain for memorials of him; but not, it would seem, for those of ignorant craftsmen assuming the outward signs of his calling. A metropolitan authority, if rumour may be trusted, has not forgotten to claim some share of public esteem for these latter, or, at all events, for one of them, the late Mr. John Hutton, in whose honour the vestry of St. George's, Hanover-square, propose to erect a drinking fountain. It is hardly to be expected that the claims of the well-advertised "bone-setter" will commend themselves to the judgment of the County Council. For the credit of public opinion it is to be hoped that they will not. The proposed commemoration would, in fact, constitute an open recommendation of quackery. To perpetuate the name of the apostles of "bone-setting" is to insult the skill of a far more carefully trained experience and to stultify the very sanctions of professional registration. We sincerely trust, therefore—and that from no mere narrow spirit of jealousy,—that the project in question will be suffered to die in embryo.

THE DIFFUSION OF SMALL-POX.

SMALL-POX continues to widen the area of its distribution, but some of the principal outbreaks which we have noted during recent weeks have given indications of abatement; and in London, whilst fresh attacks are of constant occurrence, the total number of patients under isolation by the Metropolitan Asylums Board does not much exceed 130, whereas a few weeks ago it nearly reached 150. Last week there were 39 fresh attacks in Birmingham, whilst the total number of patients suffering from small-pox in hospital is now 200; and this is in addition to some 300 cases of scarlet fever which are under treatment. In Bradford the number of new cases had fallen to 29; and amongst fresh attacks elsewhere there were: West Ham, 12; Bristol, 8; Aston Manor, 5; Wakefield, 5; Willesden, 4; Leicester, 3; Oldham, 2; attacks of a more or less isolated occurrence taking place in Handsworth, Cheetham, Leyton, Swindon New Town, Bath, Wolverhampton, West Bromwich, Rowley Regis, Worcester, Doncaster, Worksop, Southport, Ashton-under-Lyne, Halifax, Batley, New Quay, &c. In the last-named place the disease was imported by means of a sailor from Rotterdam, and several attacks ensued. One of those infected was Mr. E. R. Jones, L.R.C.P. Edin., whose death from the disease we regret to have to record. The death was the result of the performance of his duty, but a fatality from small-pox in a medical man is so rare an event that we trust that we shall obtain some statement as to the number of years which had elapsed since Mr. Jones was last successfully vaccinated, and if this was a revaccination how it was related in point of time to the incubation period of the attack to which he fell a victim.

CENTRES FOR THE BLADDER AND RECTUM.

IN a recent number of the *Neurologisches Centralblatt* there appears an abstract of an important observation by Dr. Arthur Sarbo of Budapest, which was originally published in the twenty-fifth volume of the *Archiv für Psychiatrie und Nervenkrankheiten*. The patient was a man aged forty-nine years, who fifteen years before his admission to hospital in 1891 had, in consequence of a fall from a height, sustained a spinal injury. The immediate result was paraplegia with sensory loss, incontinence of urine and fæces, and loss of virile power. The paraplegia and sensory loss disappeared, but the other symptoms remained, the incontinence, indeed, becoming aggravated. During the year before he came under observation he had suffered from shooting pains in the legs, increasing weakness, and difficulty in walking. He also was found to have anæsthesia of the mucous membrane of the anus, urethra, and of the skin of the perineum and penis—the evidences, indeed, of a lesion almost restricted to the situation of the sphincters of the bladder and bowel. The patient died, and at the necropsy there was found to be flattening of the conus and adhesion of the dura

mater. Between the exit of the fifth lumbar and the fifth sacral pair of nerves the white and grey substance of the spinal cord was indistinguishable, and there was ascending degeneration of the columns of Goll. A more minute examination disclosed that at the place of exit of the third and fourth sacral nerves there was complete loss of the configuration of the spinal cord; the nerve elements, with the exception of solitary fibres, were entirely wanting and were replaced by a mass of glia tissue with numerous glia cells. The posterior roots were partly degenerated, their coverings being thickened and the vessels increased in number, although they were large and empty. These alterations gradually lessened in amount upwards to the level of the fourth lumbar roots, and above this the cord was normal, with the exception of the degeneration already alluded to in the columns of Goll. Below the third to the fourth sacral nerves the cord was normal. Dr. Sarbo concludes that the centres for the bladder and rectum and for erection are to be placed at the level of exit from the cord of the first to the fourth sacral nerves.

THE SEWERAGE AND WATER-SUPPLY OF WORTHING.

THE town council of Worthing have now finally decided on a reconstruction of their system of sewerage, which when the mains which passed near the waterworks were examined during the late serious epidemic was found to be in many respects faulty. The plan of improvement includes the assimilation of the systems for both Worthing and West Worthing and the diversion of the sewage from the latter place to the eastern outfall. While a water which is believed to be above suspicion is now being supplied to Worthing, the final arrangements for a new scheme of water-supply do not appear to be completed. Attacks of enteric fever are now few and far between, the epidemic as such having ceased for some time past.

SNEEZING WHILE UNDER CHLOROFORM.

DR. E. LEREDE CHALKE has communicated to the *Indian Medical Record* a singular case of sneezing while under chloroform. The patient was admitted into the Berhampore Municipal Hospital suffering from complete staphyloma of the right cornea and granular lids of many years' standing. As the eyeball was practically disorganised extirpation was decided upon, and chloroform was administered for the purposes of operation. When the patient appeared to be completely under the influence of the drug the operator, Dr. T. J. Hackett-Wilkins, adjusted the stop-speculum; but immediately afterwards the patient sneezed persistently for a couple of minutes and recovered consciousness. The patient, after a short interval, was again chloroformed, and again, when apparently in a state of complete unconsciousness, began to sneeze immediately upon the introduction of the stop-speculum, and soon, of course, came round. This happened a third time, after which, having regard to the large quantity of chloroform that had been inhaled, the operation was temporarily abandoned. After the lapse of four days he was placed for the second time on the operating table and chloroform was administered, a hypodermic injection of half a grain of cocaine having been previously given. For the fourth time sneezing interrupted the proceedings. He was again chloroformed, and on this occasion a 4 per cent. solution of cocaine was dropped into the affected eye. The drops were repeated at frequent intervals, and the operation was performed without further mishap. Dr. Chalke considers that the sneezing must have been due to a reflex action started by the placing of the speculum in contact with the inflamed orbital and ocular structures, and acting along the nasal nerve by its well-known connexion with the infra-trochlear nerve and the short ciliary nerves. The possibility of their action was of course removed by placing these nerves under the influence of a local anæsthetic. With regard to the occurrence of a reflex action in a subject apparently completely anæsthetised, Dr. Chalke points out that all parts of the body do not become insensible in equal times, and that occasionally before the sensibility of a part can be obliterated chloroform must be pushed to an extreme degree. In this patient the conjunctivæ and corneæ were insensible, and for all ordinary purposes complete anæsthesia was present; but owing to the hyperæsthetic condition of the nerves of the eye reflex action was not truly annihilated, so that a hard speculum, exercising some pressure on these nerves, was able to excite the sneezing.

INFLUENZA.

THERE seems a strong tendency to a pretty wide diffusion of this disease in the metropolis. The attacks are not so serious or fatal as on some occasions, but they are very typical—characterised by abrupt onset, a sharp pyrexia, generally subsiding in a day or two, unless complicated with catarrh, which is not always the case. It is decidedly infectious, in some houses almost every member being affected.

THE UNIVERSITY OF WALES.

THE charter for the Welsh University has been sanctioned by the Privy Council and signed by the Queen, and so at once becomes law. The Education Department will now notify to the electing bodies that they should proceed to elect members to the University Court. The Court and Senate will then have to draw up the university statutes, and it is hoped that the university will be fully formed and at work in the course of next summer. The charter does not confer any powers for the granting of medical degrees.

ERROR OF DIAGNOSIS IN SMALL-POX.

WE reported last week the case in which a medical man, Mr. J. D. H. Smyth, L.S.A., was summoned before Mr. Curtis Bennett for failing to send certificates to the medical officer of health of Kensington in respect of two cases of small-pox, respectively that of Maud Keen, aged twelve years, and her father. The defendant's reply was that he regarded both cases—that of the girl and afterwards that of the father—as being cases of chicken-pox. The case of the father was in the end fatal. Dr. Thomas Frank Ricketts, medical superintendent of the small-pox hospital ships at Long Reach, gave evidence concerning the case of the girl. He said that there could be no doubt in the mind of a practitioner who had had any considerable experience of small-pox that it was one of that disease. The case of the father was still more unlikely to be one of chicken-pox, on account of his age, the severity of the constitutional symptoms, and the confluency of the eruption. It is much to be regretted that when he became ill the medical man did not reconsider his diagnosis or take some medical friend into consultation with himself. This is always a safe and right course where there is any difficulty of diagnosis, and where an error in judgment may have serious consequences, as was the case here. In connexion with the mortifying position in which Mr. Smyth has been placed, it must be remembered that the diagnosis of small-pox is not always an easy matter even under the most favourable circumstances. As Dr. Ricketts said, in many cases it is extremely difficult to distinguish between small-pox and chicken-pox. There has also been too little care in medical education to give lessons in such diagnosis. Such instruction, however, is to be had, by those who seek it, in every large town where there is a medical school—certainly in London, Edinburgh, Glasgow, and, we should think, in Dublin. Not

to obtain it is to risk being placed in very unpleasant circumstances in these days of notification. It is true that the magistrate did not find Mr. Smyth in this case guilty of any violation of the law. A medical man is not called on to notify until he is "aware" of the existence of the notifiable disease; but he ought to be aware of it when it does exist and to give it its right name.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Wilhelm Ohlmüller has been recognised as *privat-docent* in Hygiene.

Rostock.—Dr. Reinke has been recognised as *privat-docent* in Anatomy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Woldemar Poorten, a well-known aural surgeon, of Riga, at the age of sixty years.

THE annual dinner of the past and present students of the National Dental Hospital and College will be held on Dec. 8th at the Holborn Restaurant. Professor Michael Foster, F.R.S., will preside, and representatives from most of the metropolitan medical schools have accepted invitations.

SIR RICHARD QUAIN, Bart., F.R.S., whose membership of the General Council of Medical Education and Registration terminated last month, has again been appointed by Her Majesty the Queen to be a member of the Council to represent the Crown for a further period of five years.

THE Bradshaw Lecture of the Royal College of Surgeons of England will be delivered in the theatre of the College on Dec. 7th, at 4 P.M., by Sir William Mac Cormac.

THERE is a considerable amount of influenza in Berlin at present. Amongst the cases admitted into the Charité Hospital there have been some of a remarkably virulent type.

BY the unexpected and early death of Professor Kaltenbach at Halle, Germany has lost one of her most distinguished gynæcologists.

DR. NICOLE, a French physician, has been appointed Director of the Bacteriological Institute in Constantinople.

HOSPITAL SUNDAY AND SATURDAY AT MANCHESTER.—The committee and friends of this movement held their annual meeting on the 22nd ult. in the Lord Mayor's Parlour in the Town Hall, Manchester, when his lordship took the chair. The committee in their report had regretfully to record the fact that the receipts for the past year had fallen off considerably as compared with those of the preceding twelvemonth. The total sum raised this year by the two collections was £7887 6*s.* 11*d.*, as against a total of £8262 19*s.* 8*d.* collected in the preceding year, thus showing a deficit of £375 12*s.* 9*d.* for the present account. The Lord Mayor endeavoured to put a more cheerful complexion on the state of affairs by referring to the depressed condition of the working classes in the northern counties owing to strikes and other unfavourable circumstances, which, however, he trusted would soon pass away. The organisation had been in existence for twenty-four years, and during that period some £180,000 had been contributed to the hospitals by its exertions. He hoped that next year the sum just mentioned might be brought up to £200,000. The meeting concluded by the passing of the usual votes of thanks.

THE MEDICAL DEFENCE UNION AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

To the Editors of THE LANCET.

SIRS,—It having been published in your columns that negotiations were proceeding between the Medical Defence Union and the London and Counties Medical Protection Society, with a view to amalgamation, and as such negotiations have unfortunately terminated without definite result the council of the Medical Defence Union, thinking that it is only due to the profession that an account of the negotiations should be published, have approved of the enclosed *résumé* and have directed me to forward it to you for publication.—I am, Sirs, yours faithfully,

VICTOR HORSLEY,
President of the Medical Defence Union.

Cavendish-square, W., Nov. 23rd, 1893.

RÉSUMÉ OF NEGOTIATIONS *RE* AMALGAMATION OF THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED, WITH THE MEDICAL DEFENCE UNION, LIMITED.

Informal negotiations were opened on the above matter by two letters addressed to Mr. Victor Horsley, one from Mr. G. B. Mead, one of the secretaries to the London and Counties Medical Protection Society, dated June 6th, 1893, and the other dated June 19th, 1893, from Dr. Hugh Woods, the other secretary of that society.

The first public step was a letter from Dr. Hugh Woods asking whether the council of the Medical Defence Union would receive a deputation from the council of the London and Counties Medical Protection Society with a view to commencing negotiations *re* amalgamation.

This letter was considered by the council of the Medical Defence Union on July 12th, 1893, when it was resolved: "That this letter be received and entered upon the minutes, and that Dr. Woods be informed that the council of the Medical Defence Union will be glad to receive the subcommittee of the London and Counties Medical Protection Society, Limited, at their next meeting on the 26th inst."

On July 26th, 1893, a deputation from the London and Counties Protection Society, headed by the president of that society (Mr. Jonathan Hutchinson), came as delegates to lay before the Medical Defence Union the following proposals for a basis of negotiations:—

(*a*) That both societies should be wound up with the object of forming a third society.

(*b*) That certain administrative powers should be given to the branches, but with some guarantee of economy.

(*c*) That no medical official should be paid, and that previously to the final agreement an actuarial examination of the liabilities and financial condition of each society should be made.

In the discussion that followed, the feeling was unanimously expressed on both sides that the present system, whereby the profession was taxed with the cost of two executives for the performance of the same work, was most undesirable, and that fusion, therefore, should be brought about if possible.

It was pointed out at the same time by the council of the Medical Defence Union that it was clearly very impolitic and contrary to the best interests of the profession that both societies should wind up, and thus for a time not only deprive medical practitioners of means of defence, but also endanger the stability of schemes of medical defence in general.

The following resolution was, after the withdrawal of the deputation, passed by the council of the Medical Defence Union: "That a committee consisting of the three following gentlemen—namely, Mr. Victor Horsley, Dr. Masters, and one of the secretaries—be appointed to meet a committee of the London and Counties Medical Protection Society to discuss the suggestions laid before this council at this meeting by the deputation of the London and Counties Protection Society, this committee to have power to consult the solicitors and to present a report to this council."

The joint committee thus constituted met on Aug. 8th, 1893, after which certain informal suggestions for consideration were made by Dr. Leslie Phillips, one of the secretaries of the Medical Defence Union.

In answer to this a letter was received by Dr. Leslie Phillips dated Aug. 16th, 1893, from the committee of the London and Counties Society and signed by Dr. Woods. In this reply certain other suggestions were also made.

Following upon these negotiations the joint committee held a series of meetings, at one of which two solicitors were present, representing respectively the two societies.

At these meetings the following general conclusions were agreed to and were accepted by the council of the Medical Defence Union at their next (fortnightly) meeting:—

1. That in view of the much smaller membership and less established position of the London and Counties Protection Society it alone should wind up.

This course coincided with the opinion of the lawyers, and was, in fact, adopted under their guidance, as they showed that it is legally impossible for one society to hand over its members *en bloc*.

2. That the London and Counties Protection Society, having wound up, its former members should be admitted into the Medical Defence Union in the usual way.

3. That the former council of the London and Counties Protection Society should be liberally represented upon the council of the Medical Defence Union.

(Note.—The consideration of this matter is further detailed below.)

4. That the rights and privileges of the members of the London and Counties Protection Society were completely safeguarded by the fact that they were identical with those of the members of the Medical Defence Union.

This view was arrived at after a thorough and critical examination of the constitutions and memoranda of association of the two societies made by the lawyers advising the joint committee.

5. That the London and Counties Protection Society could not legally guarantee the transference of any of its members.

6. That the accounts and liabilities of the two societies should be investigated and reported on by chartered accountants.

7. That the duties of district councils of committees should be advisory, organising, and ethical.

From the foregoing it will be seen that substantial progress was made towards an understanding on this subject, the delegates of the Medical Defence Union having at all stages referred important points at issue to their council for advice and instruction. However, concerning the constitution of the council of the Union after the amalgamation should have been completed, several proposals were put forward. The first of these was suggested by the delegates of the London and Counties Protection Society, who proposed that for the first eight * months after fusion the council of the Union should consist of twelve persons nominated by the Medical Defence Union and twelve persons nominated by the London and Counties Protection Society. These twenty-four persons were to elect from among their number a president, treasurer, secretaries, &c., for the eight months in question. At the end of the year—e.g., 1894—the government of the Union was to revert to the council of the Medical Defence Union as at present constituted.

This proposal, which, of course, necessitated the temporary destruction of the administrative machinery of the Medical Defence Union, was communicated by their delegates to the council of that society.

The council of the Medical Defence Union felt that this proposal was unworkable for several reasons.

Firstly, that in addition to the difficulty of constituting an executive to work for such a short period out of a body of men unaccustomed to act together the proposal would involve complete alteration of the constitution of the Union at a general meeting.

Secondly, the council of the Medical Defence Union considered that with regard to the number of representatives of the two societies on the council, since the rights and privileges of the members of the two societies were identical, it would be fair and equitable if the representation of each company upon the conjoint council should be calculated according to the number of members composing each society, since the numerical strength of the Medical Defence Union is about 2800, and that its council numbers forty-two; and whereas the numerical strength of the London and Counties Protection Society is but between 600 and 700, proportionate representation would under ordinary circumstances be met by the addition to the council of the Defence Union of ten members nominated by the London and Counties Protection Society.

In view, however, of the fact that the London and Counties Society contemplated winding up, the council of the Defence Union agreed to receive twenty nominees of the London and Counties Society.

Since the London and Counties Medical Protection Society was organised partly on the understanding that the district councils should have wide powers, and since one or two members of the council of the London and Counties Protection Society had made this point a *sine quâ non* in their scheme of medical defence, it was clear that the fundamental difference of opinion which would of necessity arise on such an important point might be fatal to the real success of the amalgamation by impairing the efficiency and hampering the working of the conjoint council.

The council of the Medical Defence Union resolved therefore to ask that the list of nominees of the London and Counties Protection Society should be furnished to them before further progress was made with the negotiations.

This request, however, was refused by the London and Counties Protection Society, in consequence of which the negotiations were suspended.

* The number eight is taken because, whereas the financial year of the Defence Union ceases on Dec. 31st, that of the London and Counties Society is closed on April 31st.

LETTER FROM THE SECRETARY OF THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

SIR,—I have just received a document purporting to be a *résumé* of the negotiations between the committees on amalgamation of the above societies, and a note from the president of the Medical Defence Union informing me that negotiations are at an end. In case this document should be sent for publication before it has been laid before the committee of our society, I send you an *interim* reply until there is time for our council or committee to reply formally:—

The Medical Defence Union has from the first disclaimed taking the initiative in promoting amalgamation, and we are proud to plead guilty to an attempt to bring about a future which all alike professed, and ought to desire.

The statement that our committee brought about the termination of the conference by a refusal to accept a proposal which could hardly have been made seriously namely, that the names of our representatives in the suggested amalgamated society should first be submitted for approval to the council of the Medical Defence Union is not correct. The real fact is that this proposal was met by the natural counter-proposal that the names of those proposed for the amalgamated council by the Medical Defence Union should in like manner be submitted to the London and Counties Medical Protection Society. Is it this counter-proposal of ours that has put an end to the conference? Again, the statement that our society "contemplated winding-up" is an expression which, used *à la* Medical Defence Union, means that our committee considered that our council might be asked to submit to even this self-effacement for the general good. But, under the actual circumstances, to say, "In view, however, of the fact that the London and Counties Society contemplated winding-up, the council of the Defence Union agreed &c." is to make a representation which is not a true one. Our society does not contemplate winding-up, and the question never and probably never will, be broached before our council. On the question of the relative numbers of the two societies I dispute the accuracy of the published figures of the Medical Defence Union, and I affirm that the present number of *bonâ-fide* members of our society is not less than 890.

I may add that it has become more and more evident, at any rate to some of the members of our council, as negotiations have progressed, that amalgamation is at present undesirable, and that for several reasons, *inter alia* the Medical Defence Union seems disposed to act simply as a defender of individual members, whereas the Medical Protection Society desires to protect and forward the interests of the profession at large by the suppression of quacks and the like. Moreover, the Defence Union appears to be still of the mind that an oligarchy is better than a free government, and to desire to exercise all power from one centre, leaving its branches helpless, except in so far as they may be paying supporters of the central authority; and still further differs from the London and Counties Society in the opinion that all the medical officials should be unpaid, as insisted on by our society.

These and other differences which emerged during the negotiations appeared to render undesirable the amalgamation of the two societies. If the Medical Defence Union is resolved to retain unmodified its absolute central authority, its limited rage of operation, and its paid medical officials, so is the London and Counties Medical Protection Society determined to stand by its more representative principles, its wider activities, and its honorary administration.

Yours, &c.,

HUGH WOODS, Hon. Sec.,
London and Counties Medical Protection Society.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held on Nov. 22nd at 5 P.M., Mr. George Pollock, the President, occupying the chair. There was a full attendance of members of the committee. The minutes of the preceding meeting having been read and confirmed the hon. secretary read letters of regret at inability to be present from Mr. Mayo Robson, Dr. C. Steele (Clifton), Dr. George Helm (Marazion), and Mr. George Jackson (Plymouth). He then explained that the report which the committee had passed at the last meeting and which had been published in the journals had not yet been printed, issued to the Fellows, or sent to the Council of the College owing to the fact that some members of the committee were desirous of making some emendations and additions. In view of this he had consulted the President with the result that the present meeting of the committee had been summoned. The report of the committee was then brought up for further discussion, it being agreed that it would be undesirable to alter it to any material extent. Several suggestions were made as to the wording of certain of the clauses, but these were not pressed after full discussion had taken place respecting them. It was, however, unanimously agreed to insert the words "body corporate" in the place of "Fellows" in Clause 11,[1] and to add a new clause to the following effect: "That Members of the Court of Examiners of the Royal College of Surgeons of England shall be elected annually, and that no member of the Court shall hold office for more than five consecutive years, and at the expiration of this term he shall not be again eligible till after a period of two years has elapsed." The foregoing clause was one of the recommendations sent by the Association of Fellows to

[1] Vide THE LANCET, Nov. 11th.

the Council of the Royal College of Surgeons in 1884, which the committee of the Council appointed "to consider the mode of election to the Council and other matters relating to the charters and by-laws of the College" declined to adopt. In substance the clause is the same as the resolution brought forward by Mr. Willett and Mr. Tweedy at the meeting of the Council of the College in July last. It involves the necessity for an alteration in the charter..

The hon. secretary read a letter from Dr. W. J. Collins intimating that he had resigned his connexion with the Fellows' Association. Dr. Collins had tendered his resignation at a previous meeting of the committee in consequence of the support afforded to the declaration of the Council of the Royal College of Surgeons in favour of compulsory vaccination by members of the committee of the Association, but it was thought at the time that he had been induced to reconsider his intention to retire. As his letter now placed the matter beyond doubt the committee had accepted his resignation.

Mr. Percy Dunn, the honorary secretary, was asked to have the report, as amended, printed forthwith and issued to the members of the Association.

This concluded the business of the meeting, and the committee adjourned.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6092 births and 5185 deaths were registered during the week ending Nov. 25th. The annual rate of mortality in these towns, which had increased from 18·3 to 24·0 per 1000 in the preceding four weeks, further rose last week to 26·2. In London the rate was 26·5 per 1000, while it averaged 25·9 in the thirty-two provincial towns. The lowest rates in these towns were 10·8 in Halifax, 13·8 in Gateshead, 15·0 in Huddersfield, 16·1 in Swansea, and 17·8 in Portsmouth; the highest rates were 30·5 in Salford, 30·7 in Birmingham, 30·9 in Liverpool, 33·4 in Wolverhampton, and 35·2 in Oldham. The 5185 deaths included 496 which were referred to the principal zymotic diseases, against numbers increasing from 447 to 513 in the preceding four weeks; of these, 120 resulted from whooping-cough, 114 from diphtheria, 78 from scarlet fever, 67 from "fever" (principally enteric), 53 from measles, 43 from diarrhœa, and 21 from small-pox. These diseases caused the lowest death-rates in Blackburn, Halifax, Gateshead, and Swansea, and the highest rates in West Ham, Bristol, Sheffield, Bradford, Norwich, and Burnley. The greatest mortality from measles occurred in Sheffield, Wolverhampton, and Norwich; from scarlet fever in Plymouth, Liverpool, and Burnley; from whooping-cough in Bolton, Sheffield, Birkenhead, Derby, and West Ham; and from "fever" in Salford and Burnley. The 114 deaths from diphtheria included 90 in London, 3 in West Ham, and 3 in Salford. Ten fatal cases of small-pox were registered in Bradford, 4 in Birmingham, 3 in London, 3 in Bristol, and 1 in West Ham, but not one in any other of the thirty-three towns. There were 140 small-pox patients under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 25th ult., against 110, 150, and 151 at the end of the preceding three weeks; 21 new cases were admitted during the week, against 52 and 20 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3140, against 2906, 3071, and 3129 on the preceding three Saturdays; 322 new cases were admitted during the week, against 484 and 363 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 271 to 615 in the preceding four weeks, further rose to 669 last week, and were 232 above the corrected average. The causes of 89, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Cardiff, Oldham, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 18·2 to 24·3 per 1000 in the preceding four weeks, further rose to 25·4 during the week ending Nov. 25th, but was 0·8 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·5 in Dundee and 24·2 in Leith, to 32·6 in Perth and 35·4 in Paisley. The 717 deaths in these towns included 25 which were referred to whooping-cough, 11 to diarrhœa, 10 to scarlet fever, 7 to diphtheria, 2 to "fever," 1 to measles, and not one to small-pox. In all, 56 deaths resulted from these principal zymotic diseases, against 61 and 68 in the preceding two weeks. These 56 deaths were equal to an annual rate of 2·0 per 1000, which was 0·5 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 9 to 27 in the preceding four weeks, declined again to 25 last week, of which 11 occurred in Glasgow, 6 in Edinburgh, and 4 in Dundee. The 11 deaths from diarrhœa showed a slight increase upon the number in the preceding week, and included 4 in Glasgow. The fatal cases of scarlet fever, which had increased from 1 to 12 in the preceding four weeks, declined to 10 last week, of which 7 occurred in Glasgow and 2 in Edinburgh. The deaths referred to diphtheria, which had been 11 in each of the preceding two weeks, declined to 7 last week, and included 3 in Glasgow and 2 in Edinburgh. The 2 fatal cases of "fever" showed a further decline from those recorded in recent weeks. The deaths referred to diseases of the respiratory organs in these towns, which had been 103, 141, and 212 in the preceding three weeks, further rose to 244 last week, and exceeded by as many as 103 the number in the corresponding week of last year. The causes of 71, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·7 and 27·6 per 1000 in the preceding two weeks, further rose to 28·6 during the week ending Nov. 25th. During the past eight weeks of the current quarter the death-rate in the city has averaged 25·3 per 1000, against 20·7 in London and 20·6 in Edinburgh. The 192 deaths in Dublin during the week under notice showed an increase of 7 upon the number in the previous week and included 18 which were referred to the principal zymotic diseases, against numbers declining from 27 to 16 in the preceding three weeks; of these, 6 resulted from "fever," 5 from whooping-cough, 4 from measles, 2 from diarrhœa, 1 from diphtheria, and not one from small-pox or scarlet fever. These 18 deaths were equal to an annual rate of 2·7 per 1000, the zymotic death-rate during the same period being 3·0 in London and 2·1 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 10 to 3 in the preceding three weeks, rose again to 6 last week. The fatal cases of whooping-cough, which had been 8 and 6 in the preceding two weeks, further declined to 5 last week. The 4 deaths from measles exceeded those recorded in recent weeks, while the 2 fatal cases of diarrhœa showed a further decline from recent weekly numbers. The 192 deaths registered in Dublin last week included 31 of infants under one year of age and 46 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons corresponded with those recorded in the preceding week. Six inquest cases and 4 deaths from violence were registered; and 50, or more than a fourth, of the deaths occurred in public institutions. The causes of 23, or nearly 12 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS IN THE MEDICAL STAFF.

THE following officers are under orders for England from Karachi: Brigade-Surgeon-Lieutenant-Colonel Holmes and Surgeon-Captains Marder and Bate. Surgeon-Lieutenant-Colonel Molloy, retired, has been appointed to the Medical Charge at Galway. Surgeon-Major McGann has been posted to the Royal Infirmary, Dublin, and Surgeon-Major Kevin to the Station Hospital, Arbor Hill. Surgeon-Captain Davidson has been posted to the Western District on return from foreign service. Surgeon-Lieutenant Morphew has returned

to Aldershot from the Eastern District. Surgeon-Lieutenants Fowler and Porter have been transferred to York, and Surgeon-Lieutenant Barter from Dublin to the Curragh. The following officers have re-embarked on return from leave of absence: Surgeon-Captain Peake for India, and Surgeon-Captain Day for Malta. Surgeon-Major Mitchell has been granted six months leave from India, and Surgeon-Captain Barefoot has left Halifax on leave to England.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Frederick Lyons, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice W. H. Climo, M.D., retired. The following officers have been promoted: Colin William MacRury and George Gilbert MacLaren, M.D., to be Brigade-Surgeon-Lieutenant-Colonels; Alexander John Willcocks, M.D., Henry Kellock McKay, and Frederick Robt. Swaine, M.B., to be Surgeon-Lieutenant-Colonels; Louis Tarleton Young, M.D., James Barry Gibbons, Donald St. John Dundas Grant, M.B., and Dirom Grey Crawford, M.B., to be Surgeon-Majors.

INDIA AND THE INDIAN MEDICAL SERVICES.

Consequent on the retirement from the service of Brigade-Surgeon-Lieutenant-Colonel E. A. Birch, M.D., Surgeon-Major G. Bomford, M.D., and Surgeon-Captain J. T. W. Leslie, M.B., are confirmed in their respective appointments as Principal of the Medical College, Calcutta, and Secretary to the Surgeon-General and Sanitary Commissioner with the Government of India. Surgeon-Lieutenant H. M. Earle, I.M.S., Bengal Medical Officer, Lawrence Military Asylum, Sanawar, sub *pro tem.*, is confirmed in that appointment, vice Surgeon-Major G. M. J. Giles, M.B., whose tenure of office has expired. Surgeon-Major J. Hoey, Indian Medical Service, is appointed to the Medical Charge of the 2nd Madras Infantry; Surgeon-Major J. D'Costa, to the Officiating Medical Charge of the 16th Madras Infantry; and Surgeon-Lieutenant R. H. Elliott, M.D, is posted to the Madras District for duty. Surgeon-Lieutenant P. P. Kilkelly, M.B., is brought on the strength of the Bombay Medical Establishment. Brigade-Surgeon-Lieutenant-Colonel A. Cameron, Civil Surgeon, on return from leave, is posted to Benares, and Surgeon-Major J. F. Maclaren, Civil Surgeon, on return from furlough, to Ghazipur. Surgeon-Captain N. Faichnie, A.M.S., is ordered to return to Kamptee on duty at the public expense from Bombay. Leave is granted to Surgeon-Major Mitchell, A.M.S., for six months to England. Surgeon-Captain W. H. Ingham, I.M.S., is transferred to the permanent half-pay list, subject to Her Majesty's approval.

NAVAL MEDICAL SERVICES.

Staff-Surgeon Robert Waller Biddulph, B.A., M.B., is promoted to the rank of Fleet Surgeon in Her Majesty's Fleet. The following appointments are announced: Deputy-Inspectors-General: Thomas H. Knott, to Hong Kong Hospital, and George Maclean to Haslar Hospital.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel Thomas Cayzer, 6th Lancashire Volunteer Artillery, to be Surgeon-Lieutenant-Colonel; Surgeon-Lieutenant William Vernon, 1st Volunteer Battalion, the Suffolk Regiment, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Rifle: 5th Volunteer Battalion, the Royal Scotts (Lothian Regiment): Thos. Wood, M.B., to be Surgeon-Lieutenant.—3rd Volunteer Battalion, the Welsh Regiment: Surgeon-Captain E. Jones to be Surgeon-Major.—5th (West) Middlesex: Surgeon-Lieutenant H. C. C. Shaw to be Surgeon-Captain.—5th Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders): Alexander Jamieson Meikle, M.B., to be Surgeon-Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The London Companies: Surgeon-Lieutenant W. S. Fincham resigns his commission.

INSTRUCTION FOR VOLUNTEER MEDICAL OFFICERS.

A garrison class of instruction for Volunteer Medical Officers has been formed by the direction of the General Officer commanding the Home District. This class will begin in the first week in January, and will be held at the headquarters of the Volunteer Medical Staff Corps at Calthorpe-street, Gray's-inn-road, the building having been lent for the purpose by Surgeon-Lieutenant-Colonel Norton. The course of instruction will embrace military law and medical regulations and organisation in the field with special relation to the duties of bearer companies. The following officers of the Army Medical Staff have offered to assist: Brigade-Surgeon-Lieutenant-Colonel Evatt, Surgeon-Major A. E. Hays, from Netley, and Surgeon-Major Pope, also from Netley, together with an officer from Aldershot. The class will be under the direction of the Adjutant of the Volunteer Army Medical Staff Corps.

H.M.S. *Crocodile* left Bombay on Oct. 28th with 158 invalids for Netley. Owing to the breakdown of the *Crocodile* the majority of the invalids will be brought from Aden in s.s. *Golconda*.

BURMAH.

The last annexation to the Indian Empire was Burmah, and that country is now fast "settling down" under the rule of the Indian Government. Its climate is moist and enervating, and malarious fevers and dysentery are unfortunately very prevalent disorders among Europeans. The progress of Burmah of late years has been remarkable; its population is increasing more than twice as rapidly as that of Continental India and its material progress is keeping pace with this increase. Upper Burmah is now one of the most prosperous provinces of the Empire. From the account of Lord Lansdowne's recent visit to Burmah in *The Times* of the 27th ult. it appears that the Viceroy was met with numerous demands for fresh public expenditure to meet the requirements of the great development of the country during the past seven years. We hope that among the contemplated improvements the importance of sanitary works will not be lost sight of.

THE GERMAN ARMY.

Under the new Army Bill the number of medical officers in the German Army will amount to 2068. Roughly speaking, Germany will have an army some 600,000 strong.

TYPHOID FEVER AT LUCKNOW.

The Indian papers refer to the prevalence of enteric fever in the 16th Lancers at Lucknow, and state that the regiment has been moved out into camp to the south of the general brigade-ground. It is a noteworthy fact that outbreaks of this fever have been of frequent occurrence of late years among the troops in cantonments at this station.

SNAKE-BITE.

It is said that Surgeon-Major W. F. Thomas, District Surgeon of Chingleput, Madras Presidency, has been successful in the treatment of a case of cobra snake-bite by the method suggested by Dr. A. Mueller of Tasmania. According to the reports of the case the hypodermic injection of strychnine was apparently efficacious in the recovery of a patient suffering from the effects of snake-bite, but the particulars are not detailed with sufficient precision to warrant any positive conclusion. We notice that the *Indian Medical Gazette* for November contains the report of a case of recovery from snake-bite by Surgeon-Captain H. E. Drake-Brockman, I.M.S., in which strychnia was administered hypodermically until the toxic effects of the drug were obtained; as much as one-sixth of a grain of strychnia was given in the course of an hour or so.

WESTMINSTER HOSPITAL: GUTHRIE SOCIETY.—A meeting of this Society was held on Nov. 9th at the medical school. The president was in the chair, and he was supported by the following members of the staff: Mr. Bond, Mr. Spencer, and Mr. De Santi. Thirty members and seven visitors were present. Seven new members were elected. Mr. E. B. Sherlock read a paper entitled "The Theory of Recapitulation." Evidence was given to prove that in the development of any living organism, as we know it, from a single cell, there is a recapitulation of the stages through which its ancestors have proceeded to become of such a high state of development. Biological facts bearing upon the theory were mentioned, and the theory was applied to the descent of man. Mr. Walter Spencer opposed the theory, and stated that his difficulty in receiving Darwinism was that it had not been proved. Dr. Gossage and the President maintained the discussion. Mr. Thomas Bond gave a most amusing address on his experiences as a railway surgeon, replete with amusing illustrations. Dr. Fletcher added a few of his experiences to the evening's amusement. The President announced that a clinical evening will be held in the board room at the hospital on Dec. 14th, at 8.30 P.M.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE Winter Session of the General Medical Council opened on Tuesday, Nov. 28th, in the hall of the Council, Oxford-street, London. All the members attended save Sir John Simon, Dr. Haughton, and Dr. Charles Frederick Moore, the new representative of the Apothecaries' Hall of Ireland. The first noteworthy event in the proceedings was the introduction of Professor W. T. Gairdner as the successor of Dr. Leishman in the representation of the University of Glasgow. Dr. Gairdner's appearance was made the signal for a hearty round of cheers, a demonstration which was repeated when, after having been introduced formally to the President, he took his place at the table.

The President's address indicated a session of an arduous and protracted character. It told of the difficulty that has arisen between the Council and the Scottish Universities Commission, and the need for something being done in the matter, and of the presentation of a large number of disciplinary cases. After getting through some more or less routine business, the Council attacked these cases, which really constitute the main work of the session.

Considerable alterations have been made in the chamber in which the Council meet. Members have long had to complain of defective lighting, but electricity has now been introduced and cause of complaint on this score is removed. The form of the large table around which the members sit has been changed, but the alteration is not regarded with the same unanimous approval as the introduction of the electric light. Some members complain of not being able to see all their colleagues while they sit at the table. The arrangements for strangers have been altered for the better.

The tables laid before the General Medical Council in illustration of the results of the competitions held last autumn for commissions in the Services are suggestive when their exact meaning is grasped, but they are not too perspicuous. This is a somewhat grave charge, for a table the real meaning of which cannot be understood at a glance fails to effect the only purpose that it is required to serve. Taking the analysis of the result of the examination for vacancies in the Army Medical Staff first, we find that of 28 candidates 12 "passed for vacancies," 8 "qualified, but were unsuccessful," and 8 were rejected. The number of vacancies is not mentioned in the table, nor whether we are at liberty to assume that that number was only 12 and that the other 8 who qualified were closed out by the fact that there were not sufficient commissions. For the medical department of the Royal Navy there were 34 candidates, none of whom, it appears from one column of the table, received commissions, for 20, "though qualified, failed to obtain a place," 9 were rejected on physical grounds and 2 on educational, and the remaining 3 withdrew from the competition. In another column of this table, however, headed "obtained a place," we find figures which seem to indicate that 12 candidates did receive commissions, and we learn the fact—which was omitted in the table dealing with the Army Medical Staff—that there were originally 10 vacancies, and also that 2 extra commissions were afterwards granted.

In neither table can we make the number of qualifications as analysed tally with the number of candidates. This, as well as the apparent anomaly in the table dealing with the medical department of the navy, is no doubt easily to be explained; but a table should require no explanation—its function is to be explanatory. Both tables show the great success of the candidates holding the qualifications of L.R.C.P.Lond., M.R.C.S.Eng. They form by far the larger majority of the competitors for posts in each Service, and there are tabulated against them no failures in medicine, no failures in surgery, no failures in anatomy, but 2 in chemistry. There were probably—almost certainly—26 candidates so qualified, but the tables do not expressly say so.

This great success of the London double qualification makes Dr. Heron Watson's criticism—when the tables were laid before the General Medical Council—of the fact that the examiners for the Services were entirely chosen from the examiners for the Conjoint Board a very reasonable one. The Services afford an admirable opening for many members of the profession, and a fine career for some; and it is fitting that the prominent teaching members of individual schools should keep an eye upon the constitution of the examining body which controls the dispensation of the commissions.

While we are upon the topic of the conduct of examinations we desire to call attention to an occurrence which is obviously open to grave abuse. For which reason we earnestly commend it to the notice of the General Medical Council. We refer to the practice that certain examining boards have of permitting their examiners to depute a portion of their duties to assistants, almost sure to be their juniors, who may be thus left, without intervention of or supervision by the legally appointed persons, to conduct examinations both of a qualifying and honour character. As the junior man is almost certain to form a lower estimate of the knowledge of the candidates before him than his senior would have done, it is clear that the competitors examined by him are placed in an unfair position. Assistant examiners, if required, should be appointed by the authorities, in order to obviate any possibility of unfairness arising from favouritism or undue stringency—voluntary or involuntary. All medical examinations—in fact, all examinations—should be above the possibility of this kind of reproach.

The position of the Pharmacopœia as an Imperial instead of a merely British authority will receive further consideration at the hands of the General Medical Council. At the meeting in May, 1893, Dr. Attfield reported the curious results which had been brought to light so far as opium was concerned. The common employment of native opium in the doses of the British Pharmacopœia appeared to call for some revision or explanation. It is pleasant to think that the sphere of activity and utility of the General Medical Council is not to be limited to the British Isles.

Encouraged by the success which attended the legal vindication of its rights to grant double qualifications by the Royal College of Physicians of London, the sister College in Ireland applied to be placed on the same footing. In support thereof it referred to its Charter, and at first it seemed as if the Council were about to take the matter seriously; for Sir William Turner (who, it may be remembered, was one of the leading members to dispute the right of the London College) moved and Sir Dyce Duckworth seconded a reference of the application to the legal advisers of the Council. The amendment of Dr. Glover, which received powerful support in the speeches of Drs. McVail and Heron Watson, declining to hold an investigation into the powers of the Irish College, was carried by a substantial majority, and from the remarks which fell from Sir J. Banks and Dr. Atthill there is no reason to believe that the College will take any further steps in the matter.

In accordance with a resolution passed at the meeting of the General Medical Council in May last, the President has written a letter to Lord Kinnear, the Chairman of the Scottish Universities Commission, pointing out that Section 10 of the Commissioners Ordinance provides that a student may, under certain conditions, study physics, chemistry, botany and zoology before presenting himself for his preliminary examination in arts. Moreover, this year will be reckoned as an *annus medicus*. Such a student would, therefore, be able to pass his final examinations at the end of a four years' course subsequent to registration instead of the five years recently insisted on by the Council. Registration is not permitted until the examination in general medical education has been passed. Lord Kinnear has replied through the Secretary of the Universities Commission that "the Ordinance had been approved by the Queen in Council, after having been laid before both Houses of Parliament, and that the Commissioners do not consider it within their power to repeal an Ordinance which had been so approved." It was obviously the duty of the Education Committee of the Council to have objected to the section whilst the Ordinances were before Parliament, and this it failed to do. Now it is only illustrating the old proverb of endeavouring to shut the stable-door after the steed has bolted, and we expect with but little success. After all, it is only a question of date of registration, for a student has to undergo a five years' course of study, even if he takes his science before his classics and literature.

TUESDAY, NOV. 28TH.

The session of the General Medical Council was opened on this day, Sir RICHARD QUAIN, President, being in the chair.

Appointment of New Members of the Council.

Mr. W. J. C. MILLER, Registrar, read a notification of the appointment by the Royal College of Surgeons of Ireland of Sir Philip Smyly to be their representative on the Council for the residue of the term of one year from Feb. 16th, 1893, to Feb. 16th, 1894. Mr. Miller also read a notification of the appointment by the Apothecaries' Hall of Ireland of Dr. Charles F. Moore (Dublin) to be their representative for the term of one year from Aug. 1st, 1893.

The PRESIDENT intimated that Dr. Moore was suffering from influenza and could not attend.

Mr. MILLER then read a letter intimating that the University Court of the University of Glasgow had appointed Professor W. T. Gairdner as their representative for the period of five years from Nov. 9th, 1893, in room of Dr. Leishman, who had resigned.

Sir WILLIAM TURNER introduced Professor Gairdner to the President and the Council. As the new Member took his seat at the table he was loudly cheered by his colleagues.

THE PRESIDENT'S ADDRESS.

Sir RICHARD QUAIN commenced his address by observing: We inaugurate to-day the fifty-fifth session of our Council, and it will be noticed that certain changes have been made in the fitting and lighting of our Council-room, which I hope will be acceptable to the Members.

Changes on the Council.

Before proceeding with the business of the present session we have first to observe the absence of two of our former colleagues, one being Mr. Collins, who represented the Apothecaries' Hall of Dublin for a period of twelve years, and who retired in July last in consequence of advancing years. Mr. Thomas Collins was most assiduous in his attention, being always ready, with calmness and judgment, to answer on behalf of the authority which he represented, and he never failed on other occasions fairly to consider what was best for the interests of the profession. Greatly respected at home, he held the esteem and regard of every member of the Council with whom he was associated. He is succeeded by Dr. Charles Frederick Moore, a distinguished practitioner in Dublin, who will no doubt fill the vacant place with ability. With great regret we have also to lament the absence of another of our colleagues, Professor Leishman, who represented the University of Glasgow for seven years; we lament it the more because his active and useful career has been cut short in the prime of life by impaired health. He is a sad loss to us, for "while he had gained in the Council," to use the words of one of his colleagues, "a high character for good judgment, thorough impartiality, and manliness, we know that all respected him and many loved him." The University of Glasgow have elected as his successor one of their most distinguished members, Professor William Tennant Gairdner, who has a world-wide reputation for his ability and high character. His wide and long experience as a physician and as a teacher, both in Edinburgh and Glasgow, cannot fail to render his services invaluable to the Council. I may perhaps add that Professor Gairdner has already served the Council, having been one of its Visitors in 1883. Thus constituted, the Council will proceed to the business of the present session, during which many important matters will come under consideration.

Scottish Universities Commission.

The amount of business to be transacted is considerable; great patience and care have, however, been bestowed in bringing this into a compact and tangible form, so as to facilitate as much as possible our proceedings. Before referring to the special business of the present session it will be well to detail briefly some of the incidents which have occurred in connexion with the proceedings of the Council during the recess. I would first call attention to the communication which, by direction of the Council, I addressed to the Scottish Universities Commission. As this communication was prepared essentially by members of the Education Committee, I felt that it was strictly in accordance with the feelings of the Committee. Its object was to point out to the Commissioners that the effect, probably undesigned, of Section 10 of their Ordinances for Degrees in Medicine would enable a student who had studied the first year's subjects—viz., Physics, Chemistry, and Biology,—before he had passed the preliminary examination required by the Council, to count this first year's subjects as one of the five years of medical study prescribed. The Council required five years of study after the passing of a preliminary examination; the effect of the Ordinance would be to enable students to take only four years of study after the preliminary examination. A reply has been received from the Commissioners to the effect that the provision to which exception had been taken formed part of an Ordinance which had been approved by the Queen after being laid before both Houses of Parliament, and they did not consider it within their power to repeal the Ordinance. They add that, in their opinion, the provision will not enable students to evade the Council's requirements, as is feared by the Education Committee of the Council. The subject is an important one, involving the question whether the period of study shall, in certain cases, be four or five years. I have, therefore, felt it my duty to lay the correspondence before the Education Committee, who will, no doubt, report further on the subject to the Council.

The Pharmacopœia.

Another matter of importance which I have to report has relation to the Pharmacopœia. The Council will remember that during the session of May, 1892, a communication was received from the Secretary of State for India on the subject of reports received from the medical authorities in India pointing out certain inconveniences which resulted from their being required, according to the British Pharmacopœia, to use certain drugs which could be substituted by others of an equivalent value indigenous to India without incurring the expense of importation. Certain other matters of importance and interest were likewise indicated. The Council directed that the Secretary of State for India should be informed that the subjects contained in this communication should be fully considered. At the meeting of the Council in May, 1893, the Pharmacopœia Committee was authorised to enter into correspondence, through the Privy Council, with the India Office and the Colonial Office, with a view of ascertaining in what degree, if any, the British Pharmacopœia could be better fitted than at present to meet Indian and Colonial requirements as regards important natural drugs and pharmaceutical preparations. The communications, both to the India Office and the Colonial Office, will be found printed in the programme of the present meeting. A sufficient supply of copies of these communications has been transmitted through the Privy Council Office to the India Office and the Colonial Office for the use of the medical and pharmaceutical authorities in India and the Colonies. It may be

fairly anticipated that valuable and practical information available for the next edition of the Pharmacopœia will be thus obtained from the Indian and Colonial medical authorities, and that the Pharmacopœia, while still retaining by Act of Parliament its distinctive title of the British Pharmacopœia, may be made to assume something more of an Imperial or national character. I cannot conclude this subject without expressing my sense of the obligation which the Council owes to the Privy Council Office for the attention given to this matter, especially by Sir Charles Lennox Peel, who is so fully informed on, and takes so great an interest in, all matters connected with the General Medical Council.

The Question of Reciprocity.

The next subject to which I desire to refer is reciprocity of practice with foreign countries. In accordance with the resolution of the Council of May 23rd, 1893, that the several communications received on the subject of reciprocity of practice be referred to the Executive Committee to report to the Council, this report has been prepared and is submitted to the Council. It will be seen from its several comments that the principle of reciprocity as regards medical practice is entirely one-sided, and that the great liberty and freedom, under due regulations, for foreign medical practitioners to practise in this country is met, except in Germany, Italy, and Norway, by a spirit of intolerance and exclusiveness in all European countries. I need say no more, as the subject is fully treated of in the report which has been presented to the Council. For the facilities afforded for obtaining the required information from foreign Governments we are again indebted to Sir Charles Lennox Peel and the Privy Council Office.

Visitation and Inspection of Examinations.

The Visitors and Inspector of Examinations have been engaged during the year in visiting the final examinations of the English universities and of the Irish corporations. The Visitors have been Mr. Bryant, Dr. Wilks (in place of the late lamented Mr. Macnamara), Dr. Cameron, Sir William Turner, Dr. Fraser and Mr. Wheelhouse. The Council is much indebted to its Visitors and also to its Inspector, Dr. Duffey, for the valuable services which they have rendered. The several reports, together with the observations thereon of the bodies to which they refer, will be read with great interest. They clearly indicate the varying methods by which it is sought to accomplish the same ends—that is, to determine the best method of testing the fitness of candidates as regards competence to undertake the treatment of the sick. They cannot fail to be helpful to those engaged in the management of examinations. Their study must also be instructive to those engaged in the conduct of examinations, affording opportunities for observing what to adopt and what to avoid. It may be safely inferred that from these and like reports improvement in the conduct of examinations, where required, will result. These reports are all in the hands of the Examination Committee, who will present their report thereon to the Council. There remain still to be visited the Final Examinations of the Scottish universities and the English corporations. The visitation of these authorities will complete the proposed cycle of visitations. When this has been accomplished it may be assumed that by a careful and complete review of the whole subject much valuable information may be gained as regards the system of education and examination generally.

The Council and the Licensing Authorities.

The resolutions passed by the Council on May 27th and 28th, 1893, calling the attention of the various licensing authorities to the points wherein their regulations did not conform to the requirements of the General Medical Council, and also recommending the preparation of a list of practitioners whom the medical authorities "have recognised, or propose to recognise, as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study," have been communicated to the various bodies concerned. The answers which have been received in reply have been referred to the Education Committee, who will present a report on the subject. In accordance with the resolution passed on May 24th, 1893, a statistical statement of the percentages of those who passed and those who were rejected at the several examinations in previous years has been prepared and submitted to the several licensing authorities. The replies hitherto received from the several bodies have been placed in the hands of the Examination Committee, and a report will be submitted to the Council.

Indian and Colonial Universities.

In consequence of the extension of Part II. of the Medical Act (1886) to India and the colony of South Australia—which extension was duly intimated to the Council when it was made—further applications for the recognition of the diplomas of certain of the Indian and Colonial universities and colleges have been received. These are the University of Calcutta, the Punjab University, the Ceylon Medical College, and the University of Adelaide. Reports on these institutions will be submitted by the Executive Committee.

Diplomas in Public Health.

The Education Committee will present a report on the regulations of the licensing bodies under which they grant diplomas in public health, and here a question will arise as to the appointment of visitors or an inspector for the visitation of examinations in public health. It will be seen that the opinion of the legal advisers of the Council has been taken on the subject, and the committee have been advised that the Council have no authority to appoint such visitors. No doubt the Council will proceed with due caution when the subject comes under consideration.

Royal College of Physicians of Ireland and its Charters.

A communication has been received from the Royal College of Physicians of Ireland submitting a copy of its Charter and claiming the right to grant a qualification under the Medical Act (1886) entitling the Licentiate to practise medicine, surgery, and midwifery.

Bad Spelling and Medical Education.

Communications will be submitted on the subject of "deficiency in spelling" evidenced during the several examinations. The subject is one which well deserves the attention of the Council.

The Midwives Bill.

A memorial has been presented to the Council on the subject of midwives, the chief purport of which is, firstly, to indicate that certain hospitals and certain individuals issue certificates of competence which may be mistaken for diplomas qualifying to practise. This subject has been already, in a former session, brought to the notice of the Council, and warning communications were addressed to institutions which undertook to give these certificates. In the second place the memorial seems to indicate a fear that a new order of "midwifery practitioners" might be established, which would be a retrograde movement, as it would tend to repeal the provisions of the Medical Act, 1886. The pronouncement already made by the Council on the subject of midwives is so clear and so decided and expressive, that I venture here to repeat the following two resolutions passed in 1889:—

(1) That this Council regards the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes and urges upon the Government the importance of passing into law some measure for the education and registration of midwives.[1]

(2) That, if any Department of Her Majesty's Government were constituted controlling authority in relation to local arrangements made under statute for the licensing and registration of midwives, the Medical Council would, if the Government Department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would, therefore, not be prepared to undertake, any duties of detail as to the registration of midwives or as to the local arrangements for licensing or controlling them.[2]

The Question of Procedure in Penal Cases.

On May 29th, 1893, the General Medical Council passed a resolution requesting that the Executive Committee should "consider the procedure of the Council under Sections 28 and 29 of the Medical Act, 1858, with a view to the constitution of a small Standing Committee to advise the Executive and the Council on all questions of action" to be taken in penal cases.

The Executive Committee not having met, I thought it well to ask Sir Walter Foster, the mover of the resolution, and the two treasurers, to meet the solicitor in order to consider the cases requiring attention, and this was done. The Executive Committee have now made arrangements, which will be reported to the Council, for the appointment of a Standing Committee for the consideration of all future cases.

[1] Minutes, vol. xxvi. (1889), p. 168. Moved by Sir Walter Foster, seconded by Dr. Glover, and agreed to.

[2] Minutes, vol. xxvi. (1889), p. 166. Moved by Sir John Simon, seconded by Sir Walter Foster, and agreed to.

Trade Certificates and Testimonials.

There are several matters coming under the head of penal cases which will claim the attention of the Council.

There is one case in which a full report will be made by the Solicitor to the Council. This concerns a large number of medical men who had accepted founders' shares in a limited liability company for the preparation of medicated wine and food. The company having been wound up, these gentlemen claimed exemption from being made contributories, which exemption was granted on technical grounds; but during the trials it appeared that several of them had given testimonials in favour of these preparations. On this point, at the first trial, Mr. Justice Vaughan Williams said "he could not part with the case without saying that it was a sad thing that members of a learned profession should have consented to have taken shares on such terms. It might be that individual doctors thought well of the wares of the company, and that in praising them they acted as their consciences dictated, but to take shares in consideration of praising the wares of the company was very much like taking them as bribes, and it was impossible not to have a strong feeling that if those who took shares under such circumstances were held liable as contributories it would serve them right." His Lordship refused to give the applicants costs as against the Official Receiver. In the second trial, before Lords Justices Lindley, A. L. Smith, and Davey, Lord Justice Lindley, in giving judgment, said "he did not himself propose to say anything about the facts disclosed as to the morality or immorality of what took place. That was a matter for the Medical Council to consider."

The opinions thus expressed by the judges and echoed by the press are the grounds on which it has been thought right to bring the case before the Council.

It is not for me to anticipate what the decision of the Council will be on this subject, or on that of giving testimonials generally. If any resolution is adopted it can hardly fail to condemn the system of giving such testimonials, which are intended, in many cases, as much to puff the name of the writer as the subject on which he writes. The present incident can hardly fail to be a warning to medical men generally on the subject.

'A Medical Botanical Association."

Another peculiar case which will claim the attention of the Council is one in which a "Medical Botanical Association" has adopted the practice of giving the title "M.D. (Bc.)" to their members, who really act in many ways quite as if they were legally qualified medical practitioners. The Solicitor has prepared a report to be submitted to the Council and will await their instructions.

Concluding Remarks.

Such then, gentlemen, is a summary of what has been done during the recess and what is proposed to be undertaken during the present meeting of the Council. It involves the consideration of matters of the deepest importance to the medical profession and the public, whether we regard the terms of education and examination under which persons are admitted to be registered as qualified practitioners, or whether we consider the conditions under which unworthy members are removed from the Register and by which the high character of the profession may be maintained. These, indeed, are duties of the highest importance, and no body can be better constituted to undertake them than the General Medical Council, representing, as it does, the teaching and examining bodies, the Crown, and the medical profession at large. Faithfully carrying out these duties, the Council cannot fail to gain more and more the confidence of the profession and to render valuable service to the State.

Sir WILLIAM TURNER said that for many years past the duty and pleasure of moving a motion to the following effect had fallen upon Sir John Simon—namely, that the President be thanked for his address and be requested to have it entered on the minutes. He was sorry that Sir John Simon was not able to attend that morning. Perhaps he might be allowed to refer to the great pleasure it gave to himself and, he had no doubt, to other members of the Council, to read only a few days ago that Her Majesty had been pleased to reappoint their President as one of her representatives for England on that Council for another period of five years. He believed that their President had now served thirty years as a member of that Council and that this was the seventh time that the Queen had made him one of the Crown representatives. They might congratulate their President upon the fact that he had received the honour and dignity on so many occasions, and the Council were aware, before he reached the presidential chair, of the many services he had rendered both as treasurer and as chairman of the Pharmacopœia Committee.

Mr. WHEELHOUSE seconded the motion, which was cordially adopted by the Council.

The PRESIDENT thanked the Council for what they had done and Sir William Turner for his kindly words.

Business Committee.

The following members were appointed to form a Business Committee—viz., Mr. Wheelhouse, Sir William Turner, Mr. Bryant, and Dr. William Moore.

Service Examinations.

Mr. MILLER presented two tables, one showing the results of the competition held on Aug. 14th, 1893, for commissions in the Medical Staff of the Army, and the other the results of the competition held on Nov. 6th, 1893, for commissions in the Medical Department of the Royal Navy. The former showed that of twenty-eight candidates twelve passed for vacancies, eight qualified but were not successful, and eight were rejected. The latter showed that there were thirty-four candidates, that nine were physically unfit, three withdrew, twenty failed to obtain a place, though qualified, and two were rejected.

Dr. HERON WATSON proposed that the thanks of the Council be forwarded to the Director-General of the Medical Staff of the Army and the Director-General of the Medical Department of the Navy for the tables they had been good enough to furnish. These tables, he said, had a special value. They showed the results of examinations of a competitive kind. He desired to point out that the larger number of the gentlemen who appeared on the lists were such as had already obtained the diplomas of the Royal College of Physicians of London and the Royal College of Surgeons of England. Further he wished to point out that the examiners for these appointments were entirely chosen from the examiners of the Conjoint Examination in England. There was no question as to the sufficiency of the gentlemen who were examiners, but, as the candidates were to be drawn from various other schools than those of England, it could hardly be regarded as satisfactory that the examiners should belong solely to the London medical schools. Representations had been made to the heads of the two departments, and he believed that in future, when vacancies occurred, the intention was to give on the examining body a representation of other schools.

Dr. PETTIGREW seconded the motion.

Sir DYCE DUCKWORTH did not see how the question raised by Dr. Heron Watson could be discussed in connexion with the presentation of these tables. The Council could not go behind the tables submitted to it in any way. It was matter of common knowledge that the examining body was constituted as it was, and the Council had nothing to do with the matter.

The motion was then agreed to.

The Conjoint Board of Surgeons and Apothecaries of Ireland.

Mr. MILLER presented the following table of registrations of practitioners holding the qualification of the Conjoint Board of Surgeons and Apothecaries of Ireland—viz.:—

Registered in	England.	Scotland.	Ireland.	Total registered.	Number who obtained the qualification.
1888-1889	0	0	7	7	7
1889-1890	3	0	15	18	21
1890-1891	0	0	12	12	20
1891-1892	0	0	12	12	11
1892-1893	1	0	8	9	12
	4	0	54	58	71

The Case of Dr. Herbert Tibbits.

Mr. MILLER read a communication from the Royal College of Physicians of London intimating that they had revoked the licence of Dr. Herbert Tibbits, late of 68, Wimpole-street, and now of 36, Welbeck-street, and that his name henceforth would not appear on the list of Licentiates of the College, as well as requesting that this qualification might be

erased from the qualifications appended to his name in the Medical Register. He also read a communication from the Royal College of Physicians of Edinburgh saying that Dr. Herbert Tibbits had been deprived of his Fellowship and Membership, and his name removed from the College list.

After sitting in private for a time the Council determined to instruct the Registrar to erase from the list of qualifications appended to Dr. Tibbits' name in the Medical Register the qualifications of Licentiate of the Royal College of Physicians of London and of Member and Fellow of the Royal College of Physicians of Edinburgh. A letter was read from the Medical Defence Union complaining of Dr. Tibbits' conduct on account of having been associated with Cornelius B. Harness, whereupon the Council's solicitor explained the reasons for delaying the inquiry into Dr. Tibbits' conduct until the next session.

The Case of Mr. Richard Thomas Freeman.

The Registrar read a communication from the Royal College of Physicians of Edinburgh in regard to Richard Thomas Freeman, whose name was removed from the Medical Register by the General Medical Council in May last, informing the Council that Mr. Freeman's name had been removed from the College list.

The letter was entered on the minutes.

The Case of Mr. Philip Rashleigh Dodwell.

A communication was read from the Royal College of Physicians of London informing the Council that Mr. Philip Rashleigh Dodwell, a Licentiate, and who was also a Member of the College, had resigned his Membership for private reasons, and that his resignation was accepted and his diploma of Membership returned on Oct. 26th. He still remained on the register of the College as a Licentiate.

The CHAIRMAN moved that the qualification be removed from the Register.

Sir W. FOSTER thought they ought first to communicate with Mr. Dodwell before taking this step.

Sir DYCE DUCKWORTH remarked that they were in possession of the diploma.

Sir WILLIAM TURNER reminded the Council that when, about two years ago, a registered practitioner applied by letter asking that his name should be taken off they then declared that they would not do so without communicating with the body that gave him the qualification—viz., the Royal College of Physicians of London. The College was accordingly communicated with, and they gave an answer which was satisfactory to the Council, and the name of the practitioner in question was removed. Both parties were communicated with. He thought Sir W. Foster's suggestion was worthy of consideration. This gentleman applied himself for registration, and he thought he should be told that such a letter had been received as that submitted. Perhaps the resolution ought to read: "That this Council agrees to the removal of this qualification after communicating with the gentleman concerned."

Mr. BRUDENELL CARTER said that the Royal College of Physicians of London had removed, as they were entitled to do, the name of this gentleman from the list of their Members. They had signified that to the Council, and had told them it was for his private convenience and not for anything he had done wrongly. They had, therefore, fulfilled the conditions of the Medical Act, and it only remained for the Council to assist the College or this gentleman by taking from the Register that which had already ceased to appear in connexion with the Royal College of Physicians.

The motion to enter the communication on the minutes was agreed to.

The Council and the Scottish Universities Commission.

The letter addressed by the President to Lord Kinnear, chairman of the Scottish Universities Commission, respecting the effect of section 10 of their ordinance for degrees in medicine, and the reply thereto, alluded to by the President in his opening address, were referred to the Education Committee for report.

Reciprocity of Medical Practice.

The executive committee to which was referred the question of reciprocity of medical practice in relation to foreign countries recommended that their report on the subject should be issued as a separate document and be also included among the publications of the Council.

The report was received.

The British Pharmacopœia.

Two letters arising out of a communication from the India Office reported on to the Council by the Pharmacopœia Committee on May 28th, 1892, were submitted. They were both from the President of the Council to the Lord President of the Privy Council. The first set forth that the official reports accompanying the communication from the India Office showed that certain of the drugs described in the British Pharmacopœia could, in relation to the Indian Empire, be usefully substituted by drugs indigenous to India, and that certain medicinal compounds employed there could be advantageously prepared by altered and amended formulæ. The writer further suggested that this subject should be referred to the Council, who alone had legal authority "to alter, amend and republish the Pharmacopœia" as often as they deemed it necessary. The current edition of the British Pharmacopœia was published eight years ago, and as the preparation of any future edition must necessarily be the work of some two years at least, the Council did not consider the present time to be too early a period at which to commence the consideration of such important matters as those referred to them by the Secretary for India. If the medical and pharmaceutical authorities resident in India would bring before the Council such a list of suggestions relating to any part of the British Pharmacopœia as their knowledge of the pharmacology and pharmacy of India might enable them to make, those suggestions should receive the fullest and best consideration of the Council. This subject being of interest and importance to other parts of the Empire, the Council thought it should be further brought under the consideration of his lordship with a view to direct thereto the attention of the several colonial authorities. The second letter stated that it had occurred to the General Medical Council that the observations which had been made by the medical authorities in India applied to similar conditions, medical and pharmaceutical, existing in our colonies. The Council therefore asked the Lord President to submit to the respective colonial medical and pharmaceutical authorities, through the Colonial Office, copies of the two letters, and to invite the coöperation of those colonial authorities, so far as they might think fit, in a like direction to that described in the communication relating to India.

The letters were received and entered on the minutes.

Claim of the Royal College of Physicians of Ireland.

The Registrar then read a letter from Dr. Nugent, Registrar of the Royal College of Physicians of Ireland, in which he referred the Council to the judgment of Lord Justice Smith on March 9th, 1893, whereby it was declared that the Royal College of Physicians of London were at the date of the passing of the Medical Act, 1886, a medical corporation legally entitled to grant diplomas in respect of medicine and surgery, including midwifery, and to confer independently such qualifications in medicine, surgery, and midwifery as were mentioned in the Act of 1886, as well as to confer on the Members and Licentiates who had passed such examinations the right of registration under the Medical Acts, and that they were consequently entitled to be treated as a corporation capable of solely granting a registrable qualification. That judgment, the letter set forth, was grounded upon the terms of the Charter of the Royal College of Physicians of London—viz., the right to grant a licence to use or exercise the faculty of physic (*Medicina*), which the judgment declared embraced midwifery and surgery. As the Charter of the Irish College of Physicians conferred upon it the same powers as that of the Royal College of Physicians of London, the principle of the judgment applied equally to it, and he (Dr. Nugent) was instructed to request that the General Medical Council would direct the name of the Irish College of Physicians to be included in the list of corporations capable of solely granting a registrable qualification, in order that their equality with the Royal College of Physicians of London under their Charter might be fully recognised.

The letter having been received and entered on the minutes,

Sir W. TURNER said the Council would recognise the great importance of this letter and the request contained in it, because it practically meant that the Council was to recognise the Dublin Royal College of Physicians as a body which in itself could confer a complete qualification in medicine, surgery and midwifery without consultation with any other body. It was quite clear that if this were at once agreed to without inquiry the Council would put itself into an extremely difficult position; so it seemed to him that instead of debating the question that day the best plan would be to remit the letter, as well as a copy of the Charter of the Dublin College,

to the legal advisers of the Council for consideration and opinion, and he would move accordingly. In consequence of an application made he thought two years ago by the registrar of the Royal College of Physicians of London this particular table which used to appear in the Council's register had been removed by the Executive Committee. It was not in the register of this year, and his impression was that it did not appear in that of 1892, so that this request of the Royal College of Physicians of Dublin would assume that the Council should again print in their register a list of corporations capable of solely granting a registrable qualification. But, whether they had a list or not, it was quite clear that what the Royal College of Physicians of Dublin wished to obtain was the power to confer a complete qualification in medicine, surgery, and midwifery on its own examination; or rather, it wanted the Council to admit that it had the power to do so. It was obvious that they could make no such admission until the matter had been properly looked into by their legal advisers.

Sir DYCE DUCKWORTH seconded the motion.

Dr. GLOVER inquired whether it had been the practice in any anterior period to recognise the doubleness of the qualification of the Royal College of Physicians of Ireland. They knew that the qualification of the Royal College of Physicians of London was regarded by some of the public departments as a double qualification.

Dr. ATTHILL, on the part of the Royal College of Physicians of Ireland, entirely approved of the resolution moved by Sir W. Turner. They never thought the Council would grant their request or rush into an expensive lawsuit without due consideration. They were told that their Charter was identical in its leading features with that of the Royal College of Physicians of London. They had two Charters. Under the original Charter no one could practise medicine within seven miles of Dublin without their licence. They never wished to outstep their bounds, but they considered that their rights were identical with those of the Royal College of Physicians of London. He was not aware that that College had licensed wholesale.

Sir W. TURNER asked whether the Royal College of Physicians of Ireland ever conducted examinations in surgery.

Dr. ATTHILL: Not to my knowledge.

Sir J. BANKS: Never.

Dr. MCVAIL said he could not at all agree to the resolution proposed by Sir W. Turner. The argument of Dr. Atthill was that because the Royal College of Physicians of Ireland had at one time of day an area of seven miles for all purposes it should now be regarded as having a right to license throughout the Empire for all purposes. If that was so, then they would have to consider the case of the Royal College of Surgeons of Edinburgh. That college had not only seven miles outside Edinburgh but several counties. Then there was the Faculty of Physicians and Surgeons of Glasgow, which had an exclusive right for certain counties in the West of Scotland, and the examinations were complete examinations on all the subjects of the curriculum. But these bodies were not now in the least degree disposed to advance such a claim as this; they were willing to take up half of the complete diploma granted by them conjointly with the Royal College of Physicians of Edinburgh. There was only one way of settling this matter and that was by an authoritative declaration of a court of law. Let the Royal College of Physicians of Ireland do what the Royal College of Physicians of London did—go to a court of law and have the matter settled there.

Dr. GLOVER proposed as an amendment: "That it is not the duty of this Council to undertake an investigation to define the powers of the Royal College of Physicians of Ireland and that the letter of Dr. Nugent be not further dealt with." He thought the remarks which had fallen from Dr. McVail were quite unanswerable. The course upon which Sir W. Turner had started the Council in regard to the London Royal College of Physicians was one in which they appeared very foolish, and for which they would have to pay, he supposed, some £1000 or £1200. He thought they ought to put their foot down at once and say that if the Royal College of Physicians of Ireland thought its licence had virtues which had never been recognised it should establish that in a court of law and not come to the Council and ask them to recognise what they did not at present see their way to do.

Mr. TEALE seconded the amendment.

Dr. HERON WATSON corroborated what Dr. McVail had said with reference to the Scottish bodies. They were perfectly content with equalising with each other that a complete all-round examination should be provided, and that they should seek their own individual rights. If they acceded to the request of the Royal College of Physicians of Ireland they would practically encourage other bodies to follow the same course, and one of the results would be in all probability that the General Medical Council itself would be swept away. They could give no legal opinion in the matter. They had no business to set their machinery in motion for the purpose of protecting the pockets of the Royal College of Physicians of Ireland.

Dr. ATTHILL said that as far as his college was concerned they were indifferent to what course the Council took. He was not aware of what course was proposed to be adopted until he entered the Council-room. His college had taken the matter up and he believed the Scottish colleges would take it up in their turn.

On a division Dr. Glover's amendment was carried by a majority of 13 to 9, four members declining to vote and four being absent.

Midwifery.

Two petitions—one signed by Dr. R. R Rentoul of Liverpool and ninety other registered practitioners, and the other emanating from the Manchester Medico-ethical Association—upon the subject of midwives were received and entered on the minutes.

Dr. RENTOUL and his fellow petitioners prayed—

"(*a*) That your Council make a rule to the effect that if any medical practitioners without the authority of your Council, or unless under the authority of the Medical Acts, take it upon themselves to grant or give any certificate or diploma to any monthly nurses, or other persons who have not complied with the recommendations of your Council, relating to the Preliminary Examination and course of professional study, and which profess to authorise the holder to practise midwifery, such action will, when brought before your Council, be regarded by your Council as charges of 'infamous conduct,' under Section 29 of the Medical Act, 1858.

"(*b*) That if any medical practitioners, without the authority of your Council, or unless under the authority of the Medical Acts, take it upon themselves to grant certificates or diplomas to medical or surgical nurses, or to any persons who have not complied with the recommendations of your Council relating to the Preliminary examination and course of professional study, such certificates professing to authorise the holder to practise any part of medicine or surgery, your Council will hold such action to be 'infamous conduct' under Section 29 of the Medical Act, 1858.

"(*c*) And your petitioners earnestly request your Council to have a Bill introduced into Parliament with the view of making it illegal in any persons, other than those universities and corporations recognised under the Medical Acts, to grant any certificate or diploma which professes to authorise the holder to practise any branch of medicine, surgery, midwifery, or dentistry."

Mr. WHEELHOUSE intimated that before the close of the session he should propose a motion upon this subject.

The Council adjourned.

WEDNESDAY, NOV. 29TH.

The session was resumed to-day, Sir RICHARD QUAIN, President, being in the chair.

The Case of Francis Charles Scott Sanders.

The Council proceeded with the consideration of the case of Francis Charles Scott Sanders (registered as Member of the Royal College of Surgeons, England, 1881, M.B. Univ. Camb., 1883) who had been informed that he had to appear before the Council on the following charge, as formulated by the solicitor—viz, "That he was on Nov. 14th, 1892, convicted of the following felony at the Central Criminal Court—viz., that he did feloniously forge an acceptance of a bill of exchange with intent to defraud."

Mr. FARRER, solicitor of the Council, explained that this case came up last session, and was adjourned. He handed in the original summons of May 3rd with the acknowledgment of the receipt and the official statement of the conviction, which was followed by a sentence of six years' penal servitude. Since then he had told Mr. Sanders that his case would be considered now. The case was allowed to stand over last session because Mr. Sanders said an action was pending in which evidence would appear that showed something in his favour. That action, he now informed them, had been compromised. The Council might therefore put it out of account. The only question the Council had to determine was whether or not Mr. Sanders' name should be removed from the Register.

The Council then deliberated in private on the case, and the result was a direction to the Registrar to remove the name of Mr. Sanders from the Register.

The Case of James Findlay.

In the case of James Findlay, registered as M.B., Mast.

Surg. (1884), Univ. Glasgow, who was convicted on Dec. 5th, 1892, at the Liverpool Assizes, of wounding with intent to murder, the Council decided that his name should be removed from the Register.

The Case of Donald Sinclair Costerton.

The next case considered was that of Donald Sinclair Costerton, registered as Licentiate, Society Apothecaries, London, 1878, who was summoned to answer the following charges, as formulated by the Council's solicitor—viz., "That, being a registered medical practitioner, he had continually, during the years 1891 and 1892, acted as cover of and by his presence and assistance had enabled one Henry Ernest Jones, an unqualified person, to carry on a medical practice as if he had been duly qualified, such practice being carried on at 138, Stockwell-road, in the county of London. Also that during the period aforesaid he habitually signed and gave certificates of vaccination, illness, and death in cases which the said H. E. Jones had attended and he had not attended, and empowered the said H. E. Jones to sign his (Costerton's) name to such certificates in cases attended by Mr. Jones and not by him, thereby enabling Mr. Jones to practise as aforesaid."

Dr. BATTY TUKE, seconded by Dr. MCVAIL, made a motion that the consideration of the case be adjourned for half an hour to enable members to peruse certain documents which had just been supplied to them.

The PRESIDENT thought such an adjournment unnecessary, because the contents of the documents would be fully explained as the case proceeded.

It was decided by a considerable majority to proceed at once with the case.

Mr. Biron appeared for Mr. Costerton and Mr. J. McKeevor for Mr. Hentsch, the gentleman by whom the complaint was made.

Mr. BIRON said that Mr. Costerton was present, and wished at the earliest possible moment to place himself before the Council in order that he might give his account and his explanation of this affair.

Mr. FARRER read out the charge, and invited Mr. McKeevor to produce his evidence in support of it.

Mr. MCKEEVOR said it appeared that there had been a man named Jones, an unqualified man, living in Stockwell-road, and keeping there an open surgery. The surgery had been open for three or four years. First of all a qualified man named Maloney either lived in the house with Jones, or was in practice in the immediate neighbourhood. After Maloney disappeared, Mr. Costerton appeared on the scene. It seemed that he was in practice in the neighbourhood, and he used frequently to sign certificates of cases of vaccination, School Board certificates, and other things. He produced certificates signed in the name of Costerton which were really in the handwriting of Jones. He also produced the declaration of Elizabeth Herd, the mother of one of the children concerned in these certificates. She declared that the certificate was given her by Mr. Jones and that Mr. Costerton never attended her child.

Mr. BRAXTON HICKS, coroner for the south-western district of London, was called and examined by Mr. McKeevor. He said he had known Mr. Costerton for a number of years. He had signed several letters addressed to him from Wandsworth-road as well as from Stockwell-road. Witness held an inquest on the body of a Mr. Hurson, who committed suicide, and who, it was stated, was discharged from Mr. Costerton's employ, carried on at 138, Stockwell-road. There were several circumstances which rendered it necessary, in his opinion, to inquire into the motive for committing suicide, and Mr. H. Ernest Jones and Mr. Costerton were both called to give evidence. He was anxious to understand the position of the deceased man with regard to these practitioners or non-practitioners. Mr. Jones stated that it was a cash practice, that no name was on the door, that Mr. Hurson had been a fellow-assistant, and that Mr. Costerton had discharged him on account of intemperance. A certificate was produced which the witness Jones said was not in his handwriting, but which, Mr. Costerton said, was in his handwriting, and from his knowledge of Mr. Costerton's handwriting he knew that to be the case. Mr. Costerton stated before him (Mr. Hicks) that he was a resident medical practitioner at 146, Wandsworth-road and 138, Stockwell-road. He engaged the deceased (Mr. Hurson) who was with him six weeks, and he discharged him on account of intemperance. Mr. Costerton also stated that he authorised Mr. Jones to sign certificates.

In cross-examination by Mr. BIRON, Mr. HICKS said that he knew that Mr. Jones was assistant to Mr. Costerton. In the course of the inquiry as to the death of Mr. Hurson, a certificate was produced, signed by Mr. Costerton, referring to the illness of a post-office boy from tonsillitis. Asked to explain what relevance that had to the inquiry he was then holding, the witness stated that his officer went to the address where Mr. Hurson was said to have been employed. When he got there he could not see Mr. Costerton, but saw Mr. Jones. He asked Mr. Jones his name, but he would not give it and would not say who he was. He then asked about Hurson, whereupon Mr. Jones handed to him a letter addressed to Hurson. He (Mr. Hicks) had his doubts about the letter, and in consequence of inquiries he had made he desired to compare a previous certificate with the letter. He asked both Mr. Costerton and Mr. Jones whether that was their handwriting. Having constantly dealt with Mr. Costerton and Mr. Jones and other people, he wanted to know whose handwriting the certificate was in, and other certificates besides.

Mr. BIRON: Do you think that altogether fair in an inquiry relating to an altogether different matter?

Mr. BRAXTON HICKS: Perfectly fair. At that time he had no idea of any proceedings being taken. On that occasion Mr. Costerton said he had authorised Mr. Jones to sign certificates.

Mr. COSTERTON: No; untrue, untrue.

Mr. BRAXTON HICKS, in answer to further questions, said that Mr. Costerton stated that he had allowed Mr. Jones to sign certificates for him, and that if he himself saw a patient he did not think there was any harm in it.

Mr. HENTSCH was next called, and, in answer to Mr. Greaves, he said that he practised in the neighbourhood of Stockwell-road. He did not know that Mr. Costerton had any connexion with Jones at 138, Stockwell-road except as outside coverer. Mr. Hurson, who committed suicide, was with him for some time. Then he thought there was a Mr. Bowles. H. E. Jones was rated for the premises. He saw that in the rate-book about the time of the inquest on Hurson in March. There was no reference whatever to Mr. Costerton on the rate-book.

Cross-examined by Mr. BIRON, witness said he had every reason to believe that Mr. Costerton had not moved into Stockwell-road. By common reputation Mr. Maloney had been the occupant of the premises, and Mr. Jones became the ratepayer. He was not aware that Mr. Jones let certain rooms to Mr. Costerton for the purpose of the practice.

Sir W. TURNER pointed out that the Medical Register for 1891, 1892, and 1893, gave the registered address of Mr. Costerton as 138, Stockwell-road.

Mr. HENTSCH, in reply to Mr. MCKEEVOR, said he believed as a matter of fact, that Mr. Costerton had never lived at the address.

Mr. COSTERTON was then called and examined by Mr. BIRON. He said there was not the slightest foundation for suggesting that because Mr. Jones' name was on the rate-book he (Mr. Costerton) never lived or carried on practice at 138, Stockwell-road. Before he went there Mr. Maloney had been practising there with Mr. Jones as his assistant. Mr. Maloney left the house because he had to go abroad two or three years ago. There was no one there to carry on the practice. Witness said he would not take the premises in his own name, but would engage to carry on the practice with Mr. Jones as assistant.

Mr. MUIR MACKENZIE (counsel to the Medical Council): Why did you not take the premises?

Mr. COSTERTON replied that it was simply for private reasons of his own. He did, as a matter of fact, practice, and he had lived there also. That was how the address appeared on the Register. Mr. Jones was employed by him as his assistant. There was no foundation for the suggestion that Mr. Jones did all the practice and that his (witness's) name was used as a cover. Summonses were issued against him in relation to the certification of vaccination cases, but they were withdrawn. He had made inquiry as to these cases and had ascertained before signing the certificates that the operation had been successfully performed. In respect of certain school attendance certificates, they were for children of people he attended generally and he satisfied himself before signing them. He denied most emphatically that he had stated at the inquest that he had authorised Mr. Jones to sign certificates. He stated that he had authorised him to sign a particular certificate which was referred to. He sold the business in Stockwell-road in July last to

Dr. Heatley, who was now carrying on the practice. Since then he had been living in Wandsworth-road.

Replying to Sir W. TURNER, Mr. COSTERTON said that though his registered address for 1891, 1892 and 1893 was 138, Stockwell-road, his name was not on the door. He sent out no accounts, his practice being a cash one. He had no printed documents to show that his name was at all associated with his registered address. Up to November of last year he was actually at Stockwell-road. Then he employed a qualified assistant there and removed to Wandsworth-road.

Sir W. TURNER: We ought to have a categorical answer. Were you during 1891 and 1892 living at Stockwell-road?

Mr. COSTERTON: I was not actually sleeping on the premises, but still I was there night and day.

By the PRESIDENT: I had no name on the door at Stockwell-road; but, though I did not sleep habitually there, I did sleep there.

Dr. FRASER: During the two years before November where had your wife and family lived?

Mr. COSTERTON: We lived in a private house.

Dr. FRASER: Where?

Mr. COSTERTON: One place was off Milkwood-road, near Loughborough Junction, but I was not practising there.

In reply to questions by Mr. MUIR MACKENZIE, Mr. COSTERTON said he did not buy the practice from Mr. Maloney. There was a certain amount of stock left, but he did not buy it. He took it over as he said he would carry on the practice. He found Mr. Jones the occupant of the place. He paid Mr. Jones £1 a week for a consulting-room and surgery, and £2 10s. a week for his services. He took over the stock-in-trade as it was; he did not pay anything.

Dr. GLOVER: Was there anything on these premises in Stockwell-road to indicate that it was a place where medical practice was carried on?

Mr. COSTERTON: There was every indication.

Dr. GLOVER: Was there a plate on the door?

Mr. COSTERTON: No; there was no plate.

Dr. GLOVER: Is not that a most unusual thing?

Mr. COSTERTON: I do not know about that.

Dr. GLOVER: Did you ever know it to be otherwise?

Mr. COSTERTON: Oh, yes; there are doctor's places to be found throughout London where practice is carried on and indicated with a red lamp.

Dr. GLOVER: What was your objection to put your name on the door?

Mr. COSTERTON: I had private reasons; in fact, they were pecuniary reasons.

Further examined, Mr. COSTERTON said he got £320 for the practice. He had given nothing for it, but he had worked it up. Dr. Heatley now practised there.

After Mr. Biron had addressed the Council for Mr. Costerton the Council deliberated in private. On the readmission of the public,

The PRESIDENT, addressing Mr. Costerton, said: In the opinion of the Council you have committed the offence of covering charged against you; in the opinion of the Council this offence is infamous conduct in a professional respect, and the Registrar has been directed to erase from the Register the name of Donald Sinclair Costerton.

The Case of Mr. Maurice Joseph Hickie.

The Council then considered the case of Maurice Joseph Hickie, registered as a Licentiate of the Royal College of Physicians of Edinburgh, who was summoned to appear to answer the following charge, as formulated by the Council's solicitor:—"For that he, being a registered medical practitioner, had since the middle of August of this year been acting, and did act, as cover of and had lent his presence, advice, or assistance to enable one E. W. Probett, of 3, South End-terrace, Pontlottyn, an unqualified person, to attend and administer medical relief to patients and recover charges for medical attendance and otherwise practise as if he was duly qualified."

The complaint was laid by Mr. Gwilym Clement Davies, Licentiate of the Royal College of Physicians of London, who was present, and it appeared to be mainly concerned with Mr. Probett's alleged connexion with a local colliery.

Mr. Hickie did not appear, but sent in a statement of defence, in which he strongly denied that there was any partnership or arrangement between Mr. Probett and himself.

The Council, after deliberating in private for a few minutes, determined to delay the further consideration of the case until Saturday.

The adjournment then took place.

THURSDAY, NOV. 30TH.

The Council resumed to-day, Sir RICHARD QUAIN presiding, when the consideration of "penal" cases was continued, the result of which will be given in our next issue.

Medical Practitioners and Public Companies.

The Council proceeded in private thereafter to hear a statement from Mr. Farrar, their solicitor, in respect of the following cases: (*a*) Macdonald, Sons and Co., Limited, and (*b*) the General Council of Safe Medicine, Limited. On the readmission of the public it was announced by the President that the Council had passed certain resolutions. The first of these was—that "the Council, having heard with regret that certain registered medical practitioners had been found to have accepted founders' shares in the company (Macdonald, Sons & Co.) in consideration of advertising the wares of the company, expressed condemnation of the action of such medical practitioners who had accepted such shares, and of the giving of testimonials of this nature."

Prosecution of the General Council of Safe Medicine.

Another resolution remitted to the legal adviser and officers of the Council to arrange for a prosecution in connexion with the "General Council of Safe Medicine," relative to the assumption of the title of "M.D. (Bc.)," or other titles implying that any member of their company was registered, under the Medical Act of 1858, section 40.

The Council then adjourned.

HOSPITAL SUNDAY FUND.

THE Lord Mayor (Mr. Alderman Tyler) presided over a meeting of the council of this fund, which was held on Friday, Nov. 24th, in the Old Ball-room at the Mansion House. Among those present were Archdeacon Sinclair, Dr. Kennedy, Canon Ingram, the Chief Rabbi, Canon Bristowe, Mr. Carr Gomm, Mr. R. B. Martin, M.P. (hon. secretary to the fund), and Mr. H. Custance (secretary).

The report of the council stated that this, the twenty-first year of collecting this fund, had resulted in a total of £39,290. A further donation of £300—£150 to be used in providing surgical appliances and £150 in aid of the general fund—was reported this year from "E. A. H."

Mr. Carr Gomm moved, and the Archdeacon of London seconded, a resolution of condolence with the relatives of Sir Andrew Clark, late a member of the council, which was unanimously passed.

Mr. Martin, M.P., hon. secretary, expressed the regret of the council that the total amount of this fund was less than that collected in 1892.

The report of the council was passed and ordered to be published. The next annual meeting of constituents was fixed for Dec. 19th, when the council will recommend that Hospital Sunday be held on June 10th of next year.

In revising the list of the council for the ensuing year the meeting decided to recommend the following gentlemen for election at the next annual general meeting of constituents, to be convened on Tuesday, Dec. 19th: Lord Knutsford (in the place of the late Lord Derby), Sir Savile Crossley, Sir William Broadbent (in the place of the late Sir Andrew Clark), Mr. C. T. Ritchie, Sir Stuart Knill, and Mr. John Mackrell.

CHOLERA.

THE Imperial Board of Health at Berlin reports the occurrence of 17 cases of cholera, 9 of them fatal, in Prussia since the 16th ult. Another death from cholera took place at Trynek, in Silesia. A fresh case has occurred at Oranienburg, near Berlin. The disease is declared to be extinct in the district of Niederbarnim.

We hear little or nothing now as to the prevalence of the epidemic in Russia. It has been officially announced in St. Petersburg that the disease has become extinct in the province of Kalisch since Nov. 3rd, and in the town of Riga since Nov. 1st.

According to a Reuter's telegram of the 28th ult. from

Madrid, it is reported that there had been 60 cases and 10 deaths from cholera at Teneriffe within the past twenty-four hours, and 18 cases and 2 deaths at Candelaria in the same island. According to telegraphic intelligence from Tripoli at the end of last week an outbreak of cholera had occurred there and several cases had proved fatal.

It may be useful to record here that the Secretary of State for Foreign Affairs has received notice that the Quarantine Board in Egypt will, until Jan. 31st next, consider applications from candidates for the Sanitary Service at Suez and Moses' Wells. Four appointments will be made at salaries varying from 8000 to 12,000 or 15,000 francs. Candidates must possess a regular diploma, and preference will be given to those having devoted special study to practical bacteriology and epidemiology. Applications must be addressed to the Secretary of the Maritime Sanitary and Quarantine Board of Egypt at Alexandria, and must be accompanied by a diploma issued by a University or by the State, by a certificate showing that the candidate has studied practical bacteriology, and by papers showing that he has special knowledge of epidemiology.

Correspondence.

"Audi alteram partem."

"PUERPERAL SEPTICÆMIA."

To the Editors of THE LANCET.

SIRS,—Space will be saved if you will permit us to reply jointly to the letters from Dr. Playfair and Dr. Amand Routh in THE LANCET of Nov. 25th. We neither of us think that "defective sanitary conditions are not matters of importance." We have no doubt that defective drains may make puerperal women ill, just as they may anyone else; but we do not think that such conditions cause puerperal *septicæmia*. Dr. Playfair thinks it possible that the disease caused by sewer gas is distinct from septicæmia; and in this we are happy to agree with him. We are glad also to be at one with him in thinking that "puerperal disease from poisoning with sewer gas is neither so common nor so important as poisoning from infective germs on unclean hands or instruments." It will thus be seen that we do not differ from him so widely as might appear from the opening sentences of his letter. Dr. Playfair has not been able to distinguish sewer gas poisoning from septicæmia. We cannot furnish him with the differential diagnosis, because the effects of sewer gas poisoning are little understood. Many kinds of illness are put down to it; but we know of no definite set of symptoms that has been proved to be a regular effect of sewer gas poisoning. The phenomena of septicæmia, on the other hand, are uniform and well-marked, whether it occurs after a delivery or after a surgical operation. Definite symptoms, known to be usually due to a definite cause, should not, in our opinion, be put down to a totally different cause without good evidence that it can produce similar effects. Now it is a striking fact that one never hears of septicæmia being produced by sewer gas poisoning except in the case of puerperal women. We are acquainted with Dr. Playfair's able, and, to some, convincing, papers upon the subject. We differ from him chiefly as to the reliance to be placed upon the method of investigation by which his opinions have been reached. It is by applying to individual cases a very imperfect method of exclusion. A patient gets what appears to be septicæmia. A search is made for some source of septic infection. The source is not found, and it is assumed that *therefore none existed* and that the disease must have been due to some other cause. Some fault is discovered in the drainage, or there is a case of scarlet fever in the next house, and, as the case *cannot* be septicæmia (no source of infection having been found), the drains or the scarlet fever *must* be the explanation. By this method there has been produced (what is called) proof of the production of septicæmia by scarlet fever quite as strong as any that has been offered of its production by defective drainage. Evidence of the same kind and of precisely equal value has been brought forward to prove the production of diphtheria by bad drainage. We regard this mode of investigation as fallacious. The method which we think trustworthy is that of ascertaining the course of the puerperium in large numbers of cases, some being exposed to sewer emanations, others not; but all of them under conditions otherwise identical. This method has been applied by Dr. Boxall to the theory that scarlet fever causes puerperal septicæmia, and he has shown that scarlet fever produces scarlet fever, and that in those puerperal women in whom exposure to scarlatinal infection fails to produce scarlet fever, it fails to produce any effect whatever. Nothing like septicæmia is produced. An identical method of investigation has been applied by medical inspectors of the Local Government Board to the assumed connexion of diphtheria with drainage defects, but, so far as we are aware, without confirming the theory. We do not know that any thorough investigation, according to this method, of the effects of bad drainage upon the puerperal state has yet been made. If this correspondence should lead medical officers of health to investigate in a scientific manner what the actual effects of sewage emanations upon puerperal women are, we think much good will have been done.

The case quoted in Dr. Playfair's letter from his work on Midwifery is a very instructive one, and no one can help admiring his clinical acumen in detecting the cause of the patient's illness, but there seems to us to be no good reason for regarding this illness as septicæmia. The theory of Dr. Handfield-Jones that "a woman who had lived in a poisonous atmosphere may be so impregnated with poisonous particles that after delivery her tissues would become a favourable breeding-ground for septic germs" is one for which, so far as we know, there is not a scintilla of evidence. Indeed, had we been asked for a speculative opinion, based on the analogy of every-day experience in hospital life, as to the probable effect of long exposure to air contaminated by sewer gas, we should have said that it would be to acclimatise the patient to it. Our limited knowledge of continental towns would make us think that if Dr. Handfield-Jones's theory were true cases illustrating it ought to be very numerous abroad; but the security given by antiseptics has been as strikingly exemplified in the dirtiest and most malodorous towns as in the cleanest. The case which Dr. Playfair relates in illustration of Dr. Handfield-Jones's theory seems to us to have been a case of septicæmia in which the source of infection was not detected. To say that it was "a dangerous doctrine to propagate that puerperal septicæmia could be caused by defective drains and sewer emanations" was to use a strong expression, but it was the result of strong conviction. The returns of the Registrar-General (quoted in recent papers by Dr. Boxall in THE LANCET) and the experience of obstetric physicians engaged either in hospital or consulting work show (indirectly) that the medical practitioners of this country have not yet generally adopted the use of antiseptics in their private practice. Anything that gives medical men a ready excuse for not adopting them and a ready way of accounting for any case of puerperal disease that may occur in their practice is in our opinion rightly stigmatised as "dangerous." As obstetric teachers, we, like Dr. Playfair, are anxious that our teaching should, when carried into practice by those who listen to us, result in the diminution of puerperal mortality and puerperal suffering. Anything that lessens the sense of personal responsibility on the part of the medical attendant is bound to interfere with that result.

Although we are obliged to differ from Dr. Playfair on certain points, we do not forget how much the profession is indebted to him for having directed attention to a possible source of danger to puerperal women and to the need for more careful and direct supervision, by properly constituted authorities, of our domestic sanitary arrangements.

We are, Sirs, your obedient servants,

G. ERNEST HERMAN.
CHAS. J. CULLINGWORTH.

Nov. 27th, 1893.

To the Editors of THE LANCET.

SIRS,—In the recent discussion on Puerperal Diseases at the Obstetrical Society, so far as it is given in THE LANCET of Nov. 18th, some points of special interest hardly obtained adequate consideration. In the address on "Puerperal Septicæmia" given by me at the meeting of the British Medical Association at Newcastle[1] in August last, I insisted upon the fundamental truth, often lost sight of, that the

[1] THE LANCET, Aug. 12th, 1893.

term "puerperal septicæmia" covers a large range of morbid processes essentially different in origin, but all dominated or influenced by the puerperal process, and thus all simulating, more or less closely, puerperal septicæmia. I contended that it was more philosophical and practical to use a general term, such as "puerperal pyrexia" or "fever in a lying-in woman," which includes many forms of blood disorder which attack the lying-in woman, which commits to no absolute theory, but which indicates resort to clinical and pathological analysis; but the solution of the etiological problem is often a question of time. We must in all cases start from the actual clinical condition, fever in the puerpera, and deal with it as best we can. Sometimes, indeed, we can deal with the cause; but we can, and must, in all cases deal with the morbid process compounded of the invading poison and the puerperal process. In the simplest form of fever in the puerpera there is no need to search for a foreign poison. The acting poison has been developed in the patient under influences disturbing the healthy puerperal process. This is the "endogenetic puerperal fever." I do not think that this simple form is easily communicable, either through the medical attendant or the nurse; but since it is commonly difficult to eliminate the possible action of a foreign poison—that is, to be sure that the case is not one of "heterogenetic puerperal fever"—it is wiser to act on the assumption that infection is possible, and to use all precautionary measures. There appears to be at present a tendency to deny any causative relation between typhoid fever, diphtheria, puerperal fever, and sewer emanations. Not doubting the usefulness of revising accepted dogmas, it is hard to be called upon to throw over conclusions based upon extensive general observation, especially when confirmed by one's own direct experience. The evidence of the propagation of typhoid fever and diphtheria by drainage emanations is too precise to leave any doubt in my mind. Some cases I have watched of puerperal fever arising from this source have all the force of experiments directed to the point. The motive for referring to this question is to show that what is usually understood by "antiseptic or aseptic midwifery" fails to recognise at least one factor of fundamental importance. In a leading article of THE LANCET[2] it is stated: "It is generally agreed that *the* fundamental principle is that everything brought in contact with the patient should be aseptic. 'Everything' more especially means the hands of the practitioner and nurse." I would simply qualify this proposition by substituting the article *a* for *the*. There is something beyond this. The practitioner and nurse may strip, wash with disinfectants, wear out nail-brushes, change their garments, and yet they are not clean or free from the risk of carrying infection. The ordinary rules of cleanliness or purification affect only the external surface. Skin-deep physiology stops at superficial therapeutics. It is surely an elementary fact that poisonous elements are emitted from a fever patient, including puerperæ, by all the excreting organs, and especially by the breath. It surely cannot be disputed that the practitioner may take up poison not alone by his finger in the vagina and uterus, but also by inhaling the exhalations from the discharges, uterus, skin, and lungs of the patient. Now, is it not an obvious corollary that self-disinfection must be thorough. The inhaled poison must be eliminated from the entire system, and to attain this the lungs which took in the poison must be made to help in expelling it. This applies to the patient as well as to the medical attendant. If this care be neglected, she goes on poisoning herself.

To deny, as some medical men have done, the possibility of receiving or communicating zymotic and other poison by the atmosphere is to betray narrow experience or a judgment warped by preconceived theories. It is not, I trust, irrelevant to cite some personal observations. When physician to the *Dreadnought* Hospital I often had to encounter and inhale the foul emanations from patients suffering from fever, cholera, and dysentery. I was often conscious of the foul odour of my breath and stools for a day or two after such exposure; not seldom I suffered from diarrhœa. The remedy I adopted was, on getting ashore, to take a brisk walk and run over Blackheath for an hour or two. This exercise in pure air purified the blood through provoking the skin, lungs, and kidneys to work. The lesson thus learned has brought protection both to myself and to my patients; and I am sure that I advocate what is of even more importance than the ordinary antiseptic treatment so much relied upon in advising that the medical man should ride on horseback or on a bicycle or in an open carriage as a part of his daily programme. He should not wear gloves in the summer. It is needless to say that all this is good for the medical attendant as well as for his patients. A healthy medical man is the more likely to heal his patients. Nothing can be more unwise than to sit at home all the morning seeing sick people, and then to spend the rest of the day jumping in and out of a close brougham and of sick rooms. The mind as well as the body suffers. Nor does the evil end here. It is well known now that phthisis may be propagated by the breath, as can also diphtheria and other diseases not less certainly. Now a medical man who has inhaled poisonous emanations and whose system is saturated with them carries them home and there discharges them to the imminent danger of his domestic circle. I have known too many sad instances of infection spread in this way; and here let it be observed that the infection is not carried by the hands, but by the mouth—that is, by aerial interchange. Skin-antiseptics here are useless. We require aerial disinfectants. Hence the value of conducting labours under the Listerian system of carbolised spray, as is done at the British Lying-in Hospital. However, there are many more applications of these facts to the practice of general medicine into which regard for space in the columns of THE LANCET forbids me to enter.

I am, Sirs, yours truly,

R. BARNES, M.D. Lond., F.R.C.S. Eng.

Queen Anne-street, W., Nov. 28th, 1893.

[2] THE LANCET, Nov. 18th, 1893.

To the Editors of THE LANCET.

SIRS,—As you have in your leading article of the 18th inst. referred to the few observations I made in the discussion at the last meeting of the Obstetrical Society on puerperal septicæmia in support of the contention that more definite scientific information is needed before it should be asserted that there is a causal relation between sewer gas poisoning and puerperal septicæmia, I wish to refer to several points in Dr. Playfair's letter contained in THE LANCET of Nov. 25th. In that letter and in his interesting paper published in 1887, Dr. Playfair refers with characteristic caution to "defective sanitation as a cause of puerperal disease." He does not, however, maintain the same caution throughout, for in the course of the paper he states "that all these cases were typical examples of the ordinary puerperal fever or septicæmia." In spite of this dogmatic position, he says in his letter, "I am quite prepared to see it proved that such disease is distinct from septicæmia," thus indicating some lingering doubt; but further on that attitude of mind is somewhat changed when he adds that "the whole subject is too much in its infancy to justify very dogmatic assertions with regard to it." I am at one here with Dr. Playfair, but he does not manifest the same spirit when criticising the opinions of those who cannot accept his conclusions.

Everyone who has studied the subject of puerperal diseases is bound to admit the great difficulty attending the differential diagnosis of puerperal septicæmia, by the symptomatology alone, from pyrexia due to sewer gas poisoning or other morbific causes; but I believe that our advancing bacteriological science will soon be able to discriminate these. Some of the cases referred to in the discussion, and one noted by Dr. Playfair, have not the natural history of true septic infection, for if the mere change of air be sufficient to arrest all the symptoms, then the treatment of puerperal septicæmia would become perfectly simple and the prognosis less grave. I again assert that those were not cases of true puerperal septicæmia in which the patients on being removed from their insanitary surroundings had their temperature immediately reduced from 105° to 100° F. with a rapid convalescence subsequently. Dr. Playfair invites criticism by inviting reference to his paper, and he remarks that "they will find not only a good deal of evidence in proof of the evil effects of bad sanitation, but some which I maintain is absolutely conclusive." That is not denied, but that is not the point. Is there proof that it causes true puerperal septicæmia? Before we can accept a generalisation such as Dr. Playfair makes we must have more exact data than the reports he gives us, even than the two remarkable and most tragic cases, in each of which one of the nurses in attendance had an arm amputated. It is instructive carefully to note the records of these two tragedies, as they are alike in their essential features and are sad examples of true puerperal septicæmia in which the infective material is communicated by inoculation to another person in each case. It is by control inoculation and experimental research, founded on

such sad experiences, that science will demonstrate the nature and relation of the various puerperal pyrexiæ.

In THE LANCET of Feb. 5th, 1887, Dr. Playfair writes in support of the theory that absorbed poisons may remain latent in the system and only show their maleficent influence after delivery, "I well remember a terrible case which could not, so far as I can see, be explained except on this theory. It was a lady who had been residing in a hired cottage in the country close to London up to the time of her confinement. If I remember rightly she was confined before her medical man could reach her. Within twenty-four hours she was terribly ill, and was dead in a few days. The virulence of the septic influence may be judged of by the fact that one of the nurses in attendance pricked her finger, got rapid gangrenous poisoning, and had to have her arm amputated at the shoulder-joint." Dr. Playfair adds: "Is the conclusion not inevitable that the patient, who felt perfectly well on leaving the country, brought with her in some latent way the poison that developed with such deadly results?" Then, apparently to support the theory adopted that it was due to sewer gas poisoning, comes the statement that "some light is thrown on its origin by its being discovered that the cottage in which she had been living was in a most insanitary state." Dr. Playfair's account in his letter of a similar case "not hitherto published" is the following, which occurred in his own practice thirteen years ago. "A fortnight before the expected date of delivery her labour commenced in her country home, some distance from London. She immediately placed herself in the train and went to her house in South Kensington. The labour was over before either I or the nurse reached her." "I particularly beg attention to the fact," writes Dr. Playfair, "that neither I nor the nurse had occasion to make a vaginal examination; from first to last none was made, so that the patient could not have been poisoned by infective materials conveyed on the hands. Three days afterwards puerperal disease of the most intense type developed—to avoid argument I shall not call it septicæmia. Within a week the patient was dead. One of the nurses pricked her hand, acute septic mischief resulted, and in a few days her arm was amputated at the shoulder-joint."

What extraordinary coincidences there are in these two cases! I think Dr. Playfair need not hesitate to name them puerperal septicæmia, for in both the septic nature was demonstrated by the inoculation of the nurses. There is no mention of any antiseptic precautions being used in these cases. In the first record Dr. Playfair cannot "remember rightly" whether her medical attendant was present at delivery or not, and in the second he is positive that "no examination was made from first to last," so that we are left in ignorance as to whether or not there existed any laceration of the cervix uteri—a not uncommon result of rapid labour—or of the perineum, or any abraded vaginal surface for the ready absorption of septic material. To my mind, as well as to Dr. Cullingworth's and Dr. Herman's, this is part of that evidence that will not "bear criticism." Scientific precision demands more complete and carefully recorded details than Dr. Playfair's reports contain, before we can positively assert that sewer gas poisoning and true puerperal septicæmia stand in the direct relation of cause and effect.

I am, Sirs, yours faithfully,

Harley-street, W., Nov. 25th, 1893. A. WALLACE, M.D. Edin.

To the Editors of THE LANCET.

SIRS,—Inasmuch as the last word on the etiology of puerperal fever remains yet to be said, Drs. Braxton Hicks and Playfair have done yeoman service in recalling the attention of the profession to the important bearing that the quality of the air of the lying-in chamber has upon the health of the patient; and this, it seems to me, instead of being a mischievous or obstructive doctrine, is, on the contrary, in its practical application, and coupled with surgical cleanliness on the part of the patient's attendants—medical and other,—bringing the obstetric art in line with the most advanced surgery of the day. Doubtless contact infection is the proximate cause of the vast majority of puerperal septic cases; but, whilst admitting this, there yet remains a certain number of cases which, so far as the clinical appearances and the results to the patient go, are not separable from those of childbed fever, and of which the example given by Drs. Braxton Hicks and Playfair are cogent illustrations. Two other examples I may be allowed to mention as bearing on this point. 1. A case of puerperal peritonitis seen in consultation with a medical man in the country, where the only connexion with any known septic factor was through the medium of the patient's mother, who had come directly from nursing her husband, who was suffering from erysipelas. 2. A primipara, who, like the former case, died from puerperal fever, and whose medical attendant had no similar case in his practice, where, after death, it was found that the nurse had stowed away the soiled diapers under the mattress upon which the patient had lain. Although, therefore, contact explains most cases, it certainly does not explain all; and in the meantime, whilst recognising that the path of safety lies in applying to the conduct of a parturient case the same principles which guide us in our surgical work, and of which a supply of pure air is the helpful complement of sterilised hands and instruments, we must not shut our eyes to the importance of other factors in the causation of this lethal malady.

I am, Sirs, yours truly,

Nottingham, Nov. 28th, 1893. GEORGE ELDER, M.D. Glasg.

To the Editors of THE LANCET.

SIRS,—As I have been unfortunately debarred from taking part in the discussion on this subject, both at Newcastle and at the Obstetrical Society, by professional exigencies, I venture to hope that you will permit me to join in the present one. First, as to Dr. Playfair's two statements in his book, it is difficult to understand upon what basis they are made if they are not contradictory. In one he vaunts the complete efficacy of antiseptics, and in the other he casts a doubt on that efficacy. It is quite plain, however, that he has not formulated any clear idea of puerperal sepsis in his own mind, for he states that he is quite prepared to see it proved that the puerperal disease which he asserts to be produced by sewer gas is distinct from septicæmia. It appears probable that, after all, he is only attempting to distinguish between a sepsis which may occur at any time and a sepsis which is peculiar and proper to the puerperal period. In his book the distinction is not made obvious. What, now, is the evidence which he brings forward to establish the fact that sewer gas is capable of causing a puerperal sepsis?

A paper in THE LANCET of Feb. 5th, 1893. The sepsis dated from the eleventh day. I have been able to find no definite account giving a distinction between a sepsis of the first week and one of the second. There can be no difficulty for Dr. Playfair in recalling instances which separate the two classes of cases. It has not, possibly, occurred to him to think of the condition of the maternal parts, which accounts for the clinical differences. Dr. Cullingworth and Dr. Herman appear to me to have protested merely against the danger of allowing medical men to fall back upon drains as the cause of sepsis and thus saving themselves the trouble of going further into the consideration of the case, and that protest is one in which I cordially join. There are very few houses in which the sanitary expert cannot and does not find failures as occasion arises. Given some failure, what is more natural than to fix on it as the fountain and origin of any ill which may have befallen a member of the household—whether temporary or permanent? I can recollect one or two cases which might have terminated disastrously if I had been content to follow such a course. The cause of puerperal sepsis is very largely dependent, and not improbably altogether so, on maternal conditions. The vagina, after parturition, may be compared with the intestines. In both cases myriads of bacteria are present in normal conditions; in certain abnormal conditions (connected either with the tracts themselves or with the condition of the blood) bacteria which can produce disease by the products of their growth and development are able to grow and multiply. These may originally have been introduced in their specialised form, or may have become specialised in their form and function by changed conditions. It is impossible in a letter such as this to describe the various forms of intestinal disease undoubtedly caused by bacteria, and their clinical variations; but a consideration of them points strongly in the direction of the idea that even a specialised disease, such as enteric fever, is not simply caused by the reception of a specialised bacterium ready made, but that the disease is the result of many factors; and that unless the sum of those factors represents the condition of the intestinal contents which are suitable for the growth and activity of the bacteria they will be incapable of producing the disease. So with puerperal sepsis and traumatic sepsis. Mr. Lawson Tait's brilliant results, as well as those of many other surgeons, are the outcome, no doubt, of their neglect of the bacteria, their efforts in removing from the body any possible nidus for their growth, and their

appreciation of the necessity of strict preparation of the patient before operation. In the case of puerperal sepsis, Semmelweis, years ago—I think in 1854—showed that if an animal poison is introduced into the woman at the time of delivery sepsis resulted, and that by the use of antiseptics this class of sepsis might be materially diminished. Dr. Boxall in some recent papers has added further facts in support of this. These two facts are so firmly established that it is useless to say more, and the question remains: What are the conditions which predispose to puerperal sepsis, exclusively of those produced by the direct introduction of bacteria? Dr. Playfair's case is one occurring in the second week after delivery, and the conditions connected with a fever at this period are known, though they are not always recognised. These conditions are connected with blood. After delivery the uterine sinuses are sealed with blood clot. If the process of organisation in these clots progresses normally it is complete in about six days. This fact alone marks off the two great classes of puerperal sepsis. The sepsis which has been termed "sapræmia" and the venous and lymphatic forms of septicæmia are practically unknown after the fifth day, and these are the classes which are due to some disturbance in the normal process of waste and repair, which commences immediately after delivery. The second great class of puerperal sepsis occurs after the period in which organisation in the thrombi ought to take place. It appears reasonable to connect this form of sepsis with morbid conditions connected with them. But there is another factor: the blood of the lying-in woman (whatever may be the real reason) is prone to clot in the veins. There may be thrombi in the femoral vein which are complete and cause a white leg; or thrombi may form in the pelvic veins: these may be incomplete—that is to say, they may not form complete occlusion of the vessel. Such thrombi may not undergo organisation, and, if they do not, under the influence of bacteria (bacteria probably always present in the blood), they break down, thus forming a nidus for other bacteria which produce sepsis by the products of their growth. The termination of such cases depends very much upon the extent of the thrombosis, the extent of the breaking down, and the treatment. They are essentially the cases in which fresh air, sunlight, and quinine and iron, administered with a knowledge of the drugs, will effect often almost instantaneous cures. It may be presumptuous to say so, but it appears more likely that Dr. Playfair's case was one of these, in view of the fact that so many women are exposed to all kinds of drain poisons and yet do not have this form of sepsis; and, on the other hand, so far as my observation goes, it is this form of sepsis which most frequently attacks the upper classes, while it is the other form which most often attacks the lower ones.

Dr. Playfair's second case is an instance of the first class of puerperal sepsis. The poison in these cases comes from the vaginal or uterine tracts. It may originate in decidual remnants, and in these cases, *given prompt removal of the nidus, restoration to health follows.* It may originate in the vaginal discharges; bacteria naturally swarm in these, and their abnormal condition may depend either upon decomposition of débris, or upon the secretions of wounds, or upon the free entrance of air, or they may depend upon the introduction of a specialised form of bacteria at the time of delivery. These cases differ essentially from those occurring in the second week after delivery; their course is acute, the poison follows either a venous or a lymphatic course, and they differ in their clinical details most markedly. Either a phlebitic or lymphatic sepsis is, I believe, unknown as commencing in the second week. As to Dr. Playfair's theory about this case, it would be difficult for him to establish a connexion between the drains and the disease. It is certainly difficult, in the absence of very full details of the case, to look with anything but grave suspicion upon it. Taking into consideration the causes which are known to produce sepsis at this period, it appears that the only possible effect that the sewer-gas could have had upon the patient would be to produce a general condition of ill-health, which would predispose to a susceptibility for disease.

In conclusion, I am not sorry that this discussion has arisen, because my attitude on the question of midwives' registration will perhaps be better understood. It has struck me with amazement that, with a question of first-class importance such as this unsettled, and, as Dr. Playfair says, yet in its infancy, it should be considered a well-advised step to encourage the practice of any but the most highly educated. Certain it is that in dealing with sepsis of any kind—with the condition well established—a person called in who is unacquainted with all the details of the case from the commencement of the labour is very unfairly handicapped.

I am, Sirs, yours truly,

Hatfield, Nov. 25th, 1893. LOVELL DRAGE.

To the Editors of THE LANCET.

SIRS,—On reading in THE LANCET of Nov. 18th an account of the discussion following the reading of a paper at the Obstetrical Society of London by Dr. Braxton Hicks, entitled "A Further Contribution to the Clinical Knowledge of Puerperal Diseases," I was amazed at the scepticism shown by Drs. Lewers and Cullingworth regarding the danger of defective drains and sewer emanations to parturient women. I was so much impressed by the communication in THE LANCET of Nov. 25th by Dr. W. S. Playfair, in controversion of the views expressed by the two gentlemen above named, that I wish to instance a case in corroboration of Dr. Playfair's statements. It occurred in the person of my wife at her second confinement, while we were residing in Edinburgh. She was attended by the late Dr. A. Milne, an able obstetrician, and there was nothing unusual in the labour to account for what followed. All went well until a day or two after the delivery, when alarming symptoms of puerperal fever developed rapidly. She became quite delirious and unconscious, and seemed to be sinking fast. I asked my late father, who had had an immense experience of obstetric practice in Edinburgh, to see her along with Dr. Milne, and they both concurred in the opinion that there was little or no hope of her recovery. I suggested leeches to the head, but they opposed this line of treatment, being of the opinion that the patient was in too weak a state to bear the loss of any blood. After they left the house, however, seeing the desperate state of matters, I resolved to risk the consequences of leeching, and having procured half-a-dozen leeches I applied them to my wife's temples and other parts of the head. The hair had previously been cut short, and ice was continuously kept applied with little or no effect. After the leeches dropped off and bleeding had gone on freely my wife regained consciousness, became quite sensible and collected in her speech, and she had no more head symptoms, although her recovery was very protracted, owing to severe diarrhœa, which, no doubt, helped to carry away the toxic matter from the blood. Both Dr. Milne and my father were perfectly astonished at the result on making a visit early next morning, as they fully expected to find their worst fears confirmed. It was months, however, before she fully regained her strength, as she took an attack of rheumatic fever afterwards when quite convalescent. Now, as to the cause of her illness, there was not the least doubt but that it was due to the insanitary condition of the house we occupied. I subsequently found that it bore the reputation of being an unhealthy one and was blamed for causing the deaths of several of its former occupants. The drains were manifestly in a most defective state, the smell therefrom pervaded the atmosphere of the rooms, and the dampness was dreadful. The nurse who was in attendance on my wife also became unwell and was confined to bed in the house. I likewise suffered from what I considered to be a severe attack of influenza, but this I ascribed to the unhealthy house. I may state that my wife, who was always strong and healthy previously, had been attended in her former confinement in another house by Dr. Milne, and she then made a most favourable recovery.

Another case comes to my recollection. While in practice in the Isle of Skye I was called to a woman who was being attended by a midwife. The house the patient occupied was one in a township of crofter fishermen, where the habitations were far from being in a sanitary condition either as to drainage or the character of the surroundings, and in this locality numerous cases of diphtheria, amongst the children especially, occurred continually, with in several cases a fatal result. In a house quite near to where this woman was confined I afterwards saw a dreadful case of erysipelas in a man which extended all over his body and ended fatally. The woman I mention came through the labours quite easily and seemed to be doing very well, but a day later puerperal symptoms of gravity suddenly developed and ran with rapidity to a fatal termination. Now in this case, although I investigated the matter thoroughly, I could find no evidence of contagion in the ordinary sense of the term, and every precaution had been taken at the time of delivery and afterwards. There was nothing but the insanitary state of the dwelling-place to account for the disease, and I always noticed peculiar smells

about the house and in the locality. I believe all these diseases had a common origin in the bad drainage. I consider that it is a most iniquitous thing to permit houses anywhere to be occupied until there has been a thorough inspection of the drains and of the house generally by a proper sanitary authority, and until a certificate of fitness for human occupation has been given by the aforesaid authority. Until the law is altered to this effect we need not be surprised at outbreaks of puerperal diseases.—I am, Sirs, yours truly,

JOHN COCHRANE, L.R.C.P. and L.R.C.S. Edin.,
Medical Officer of the Parish of Lochgoilhead and Kilmolich, and District Medical Officer of Health, Argyll County Council.

Nov 28th, 1893.

"THE LANCET SPECIAL ANALYTICAL SANITARY COMMISSION ON SMOKE PREVENTION AND PERFECT COMBUSTION."

To the Editors of THE LANCET.

SIRS,—It was with much pleasure I read the able, exhaustive, and scientific report on Smoke Prevention and Perfect Combustion in the last number of your journal. THE LANCET continues worthily to sustain its reputation for public spirit in prosecuting such an inquiry, one which should long ago have been undertaken at the public expense. Is it too much to hope that the Legislature may be now induced to intervene to rid London of a nuisance universally acknowledged and deplored? In THE LANCET of Aug. 6th, 1892, you did me the honour of inserting a letter on the Smoke Nuisance in London. Since and before that date, in print and in private, I have urged the moral of the same lesson; but the public is closely wedded to its prejudices and is difficult to move. If Parliament will do nothing it is only by steadily keeping this important subject before the eyes of the people that improvement can be expected. The evils are known; a remedy is at hand. That remedy, as you have shown, and as I have long contended, is the substitution of gaseous fuel for coal. It may not be an ideal or a perfect substitute; but, on the whole, it is the best we can at present employ. If we wait for perfection before moving in any given direction we might wait for the millennium—and should continue to suffer meanwhile.

There is one point on which your report has not touched, I think; perhaps it was not strictly within its scope. I allude to the volumes of unconsumed smoke poured out by factories. I believe an Act of Parliament exists dealing with this matter. If so, it seems to be regarded as one of those laws made to be broken. No doubt if every factory in and round the metropolis was compelled to consume its smoke efficiently the amelioration we should experience would be but slight while innumerable private chimneys continued to roll out their murky contents. Still it would be a beginning, and it would induce an appreciable benefit, which again would lead to further steps being taken of a wider kind. I know few questions more worthy the attention of medical M.P.'s, for it concerns the comfort and health, not of London alone, but of all the large towns of the kingdom. Who has not noticed the filth-laden condition of the atmosphere in the Black Country, in parts of Lancashire and Yorkshire, in Glasgow, Newcastle, Bristol, and other places? Fogs may be a necessary incident of our latitudes; smoke assuredly is not, being an artificial evil produced by ourselves. If the evil was slight we could afford to neglect it; but it is already huge, is growing every year, and threatens to envelop a great part of the country to the injury of its inhabitants and to the destruction of the fair face of nature. Like practical Englishmen let us put a stop to this. I am, Sirs, yours faithfully,

H. R. OSWALD, M.D. Edin.

Thurloe-place, S.W., Nov. 29th, 1893.

THE EMPLOYMENT OF ELECTRIC LIGHTING CURRENTS FOR MEDICAL PURPOSES.

To the Editors of THE LANCET.

SIRS,—As the writer of the articles on "Current from the Main," which appeared in THE LANCET of Dec. 19th, 1891, and April 9th, 1892, I beg to advert to the concluding sentence of an article on the same subject which has just appeared. Its writer states that "with an 8-candle lamp permanently fixed in the [100-volt electric light] circuit with the patient he cannot become the path of a current of really dangerous magnitude." Let it be considered what this may mean. Even on the assumption that current in the electric light lead cannot rise above 300 milliampères, that every lamp is protected by a fuse which will break without fail immediately the proper current is exceeded, and that the resistance of the body never falls below a thousand ohms, the possible current in such a circuit (allowing 200 ohms as the resistance of the lamp) would be 80 milliampères. But can such assumptions be considered as safe? As to the first, the writer quoted admits that a sudden rise of pressure in the mains is not yet quite impossible. Now, it is recognised that incandescent lamps of the class referred to will sometimes allow two or three times their proper current to pass before breaking; in such contingencies, therefore, a current approaching 1000 milliampères may possibly pass through the body. As to the second assumption, as a matter of fact lamps are seldom protected by fuses. Fuses are really placed in electric light circuits to protect wires against the results of short-circuiting and will therefore pass several ampères before acting. As to the body, there are conditions under which its resistance may be less than a thousand ohms, and, of course, diminished resistance means increased current. I pass over for the moment other points in the article which are open to criticism; but the above statement appears to me to be so serious as to call for immediate comment.—I am, Sirs, yours truly,

Brighton, Nov. 27, 1893. W. S. HEDLEY.

MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—I am in receipt of the following letter from the Royal College of Physicians of Ireland, the contents of which being of great interest to the profession in general and to the licentiates of the College in particular, I venture to ask you to publish:—

Royal College of Physicians of Ireland, Dublin,
Nov. 13th, 1893.

Dear Sir,—In reference to your letter of Aug. 17th, I beg to enclose the following copy of a resolution passed by the President and Fellows of this College on the subject you refer to:—"Resolved—That the Royal College of Physicians of Ireland desire to express their disapproval of their licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system, and the services of the physician are used so as to produce a profit for lay persons."

Faithfully yours,
(Signed) G. P. L. NUGENT, M.D.,
Dr. Leslie Phillips. Fellow and Registrar.

The Royal College of Surgeons of England, recognising the evils which must arise from its Members associating themselves with "trading institutions for treatment of disease," most properly passed the following resolution: "That it is degrading to the profession and injurious to the public interest that Fellows or Members of the College should associate themselves with trading institutions for the treatment of disease and allow their names to be advertised in support of the practice of medicine and surgery by persons not legally qualified." Perceiving the applicability of the terms of this declaration to medical aid associations, to individuals, and to insurance companies carrying on medical aid businesses, I applied to Mr. Edward Trimmer, the secretary of the College, for verification of my surmise, and in his reply he says: "Having regard to its terms—i.e., the terms of the resolution—I am of opinion that, on the assumption that such associations are to all intents and purposes trading institutions, it is clear that they must be included in its scope." I need make no comment on the beneficial importance of these resolutions to the profession or on their significance to the licentiates of the respective Colleges who hold office in medical businesses of the medical aid type.

I am, Sirs, your obedient servant,

Nov. 25th, 1893. LESLIE PHILLIPS.

"SOME POINTS WITH REFERENCE TO THE DIAGNOSIS AND TREATMENT OF TYPHOID FEVER."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 25th Dr. Edmunds writes that he is under the impression that the cases referred to in my address on typhoid fever were those of young children, and that as such they are not "comparable with a set of cases having an essentially different rate of mortality." As stated in my paper the cases were taken consecutively from

the hospital records. They do not refer entirely to children. Of the 116 cases alluded to, 41 were patients of fifteen years of age and under. Among the 53 cases at the North-West London Hospital 23 were children. With regard to age these cases appear to me to be strictly comparable with those at the Temperance Hospital. Sixty cases were there under treatment, 24 being children; 5 of these little patients succumbed to the attack. It would appear that the rule referred to by Dr. Edmunds as emanating from Dr. Bristowe, that young children seldom die from this disease, does not hold good at the London Temperance Hospital. When the hospital authorities are making their investigation into the mortality of their fever cases I would suggest also an inquiry into the mortality of lobar pneumonia. I find by the official report that during six years there were 83 cases under treatment; 25 of these patients died. Surely this is a death-rate far above that usually met with in the practice of those physicians who are accustomed to treat the disease from a different standpoint.—I am, Sirs, yours obediently,

Green-street, Park-lane, Nov. 27th, 1893. DONALD W. C. HOOD.

"SEA VOYAGES FOR THE SURGICAL CONVALESCENT."

To the Editors of THE LANCET.

SIRS,—I should like to correct Mr. Hudson's conclusion that I rely upon a single voyage for the temperatures, although I only gave the figures of one voyage. The temperatures taken by another surgeon agree so closely with my records that I believe that they are a correct average. If Mr. Hudson relies for scientific purposes on the commander's log I will not argue the matter further; I prefer independent gentlemen to furnish these reports and no one can do it better than a ship's surgeon. I have two very intelligent patients now undertaking the round voyage, and they have promised to record the daily temperatures for me. I shall be happy to send a copy of these when they come into my hands.

I am, Sirs, yours truly,

THOMAS DUTTON.

Northumberland-avenue, W.C., Nov. 25th, 1893.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Assizes.

MR. JUSTICE DAY completed his labours at the Crown Court here on Nov. 27th. Among other cases of interest was one in which a woman was tried for the manslaughter of her infant by overlaying it while drunk. The case was clearly proved; the fact of the child's death was first discovered by a neighbour going into the room. The medical evidence was to the effect that the child had been dead some hours, the rigor mortis being well marked. The woman had been more or less intoxicated for the whole of the previous week and was still under the influence of drink when the child's death was discovered. In sentencing her to three months' imprisonment, with hard labour the judge commented severely on the drunken habits of too many women in Liverpool which led to crime. In a case of criminal assault upon a girl by her father and brother, Mr. Justice Day complimented the medical witnesses, Mr. Evans and Dr. Underhill, upon the manner in which they had given their evidence, also the officials of the local Society for the Prevention of Cruelty to Children on their humane efforts to rescue the girl from her wretched surroundings. The prisoners were acquitted, but the judge severely condemned the father for his drunken habits which were the cause of himself and family living without any regard to decency.

The Royal Southern Hospital.

The Lord Mayor attended St. Michael's Church on Sunday Nov. 26th, when a sermon was preached by the Dean of Norwich, on behalf of the Royal Southern Hospital, the collection being nearly £100. After the service the Lord Mayor and other gentlemen present visited the hospital and went through the wards. In the course of his very interesting sermon Dean Lefroy observed that it was not until the Christian era that anything was done for the sick poor; the Roman patrician was too powerful and the Grecian noble too refined. The creation of hospitals proceeded with the growth of Christian principles, and the first hospital was not, as might have been expected, in Jerusalem, but in Rome, the scene of such heartlessness, luxuriousness, and darkness in the past. Within recent years nearly a million of money had been bestowed in Liverpool by the rich upon the poor, by the classes upon the masses, chiefly in the way of infirmaries and hospitals.

The late Mr. E. M. Sheldon, M.R.C.S., L.S.A.

The news of the death of Mr. Sheldon was received with much regret but without surprise, as it had been known for some time past that his health was in a very precarious state. The deceased was one of the founders of the Stanley Hospital, to which he was first honorary surgeon, and at the time of his death consulting surgeon. He had for many years a large private practice and had been a member of the West Derby Board of Guardians. He was also an active Freemason in his younger days.

Nov. 28th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The late Gale and the Dangerous Use of Alcohol.

DR. WILKINSON of Tynemouth, surgeon to the Tynemouth Volunteer Life Brigade, in reference to an accident which occurred on the pier during the late gale, gave timely advice to the Volunteers as to the danger of administering alcohol to half-drowned persons. He mentioned the case of a young man who was knocked down on the pier by a wave, sustaining an injury to his side. He was brought to the surgery drenched to the skin and extremely cold. He emitted a strong odour of spirits, and it was found that after the accident he had been taken to a public-house and brandy had been given to him. Dr. Wilkinson ordered him to go to bed at once at a hotel, but he persisted in returning home to Newcastle—a slow journey—sitting in his wet clothes. He died half an hour after his arrival home. Dr. Wilkinson pointed out that it was important to the members of the brigade to remember that it was often a fatal mistake to give brandy to a half-drowned person, at any rate until the wet clothing had been removed and the temperature had been raised in a warm bed.

Carlisle.

At the last meeting of the Carlisle sanitary authority a communication was read from the Actors' Association calling attention to the very objectionable sanitary condition of Her Majesty's Theatre at Carlisle. The atmosphere of some parts of the theatre was, it was said, so foul that windows had to be broken, while on some occasions the actors on leaving the theatre had to make their way through literal pools of filth. The town clerk said that it was very evident that something ought to be done to put the place in a proper sanitary state, and it was agreed to refer the matter to the surveyor for a report.—The death is announced in the Carlisle Workhouse of Edward Allen, aged 105 years. He was a soldier and had taken part in several historical campaigns. For many years past he had been one of the "characters" of Carlisle, living in very humble circumstances as a hawker of bootlaces and similar oddments, and photographs of "Old Ned," which visitors were also invited by shopkeepers to carry away with them as mementoes of Carlisle.

Sudden Death of Mr. C. P Gibson, L R.C.P. Edin., M.R.C S., from Influenza.

The sudden death of Mr. C. P. Gibson of Wetherby, Yorkshire, on Saturday last from influenza, is announced. Mr. Gibson had practised at Wetherby for sixteen years, and was universally respected. He was medical officer to the Wetherby Union. He was only thirty-nine years of age, and leaves a widow and two sons and three daughters.

Newcastle-on-Tyne, Nov. 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Entries at the Dublin Medical Schools.

THE anatomical entries for the present year are as follows: University of Dublin, 198; Schools of Surgery (Royal College of Surgeons), 167; Catholic University, 118: total, 483. As compared with last year, Dublin University shows

an increase of 17, Schools of Surgery (Royal College of Surgeons) a decrease of 11, and the Catholic University an increase of 2. The total number shows an increase of 8 as compared with the returns of last session.

Royal College of Surgeons—A Lady Fellow.

Miss Emily Winifred Dickson has obtained the Fellowship of the Royal College of Surgeons, and is, I believe, the first lady who has been enrolled on the list of Fellows. Miss Dickson is a graduate in medicine and surgery of the Royal University of Ireland, and a Licentiate of the Royal Colleges of Physicians and Surgeons. The new Fellow can become a candidate for a seat on the council or fill the presidential chair if elected by the Fellows of the College.

Coombe Lying-in Hospital, Dublin.

This institution is at present in an unsatisfactory condition owing to the death of the matron and the resignation of the master (Mr. Hoey) and assistant-master (Mr. Curtin). To-day (Tuesday) the Board of Superintendence of Dublin Hospitals, which obtains grants from Government, will hold a special meeting to consider the affairs of the institution. The Coombe Hospital receives a Government grant of £200 a year.

Kingstown Water-supply.

Kingstown is one of the townships supplied by the Vartry water, but in consequence of the inadequate supply this year the Commissioners are anxious to obtain a supply from an independent source, in which endeavour Kingstown will be joined by one or more townships. Is is proposed to obtain the water from the Glencullen river and Lough Bray, which are able to supply pure water in large quantities, there being a combined area of about 100 acres. The loughs are of considerable depth and can be used as storage reservoirs. Upper Lough Bray is 1453 feet and Lower Lough Bray 1225 feet above sea level, while Glencullen has a level of about 900 feet. The cost will be comparatively trifling, and as the various townships have already their systems of distributing mains, it will be only necessary to establish a connection with the new supply.

Dublin University Biological Association.

At the opening meeting of the session of this Association the President, Dr. Henry Drury, delivered an inaugural address on the Medical Care of Children. This was, he said, a distinct and separate branch of medical practice, presenting peculiar difficulties such as were met with in no other section of medical work, and yet it was one to which the attention of the student was but little directed. The importance of this subject would be manifest when they considered the gigantic proportions of the infant mortality in their large towns and cities. Taking for comparison the general mortality of the population at the high figure of 25 per 1000, the mortality among infants in the first year of life reached the fearful figure of 200 in every 1000 born. Much of this, no doubt, was inevitable, but a very large proportion was due to preventable causes—viz., the surroundings of the children, the want of care manifested by their natural guardians, foul air, bad feeding, cold, hunger, or inherited diseases. Much of this mortality could be averted by judicious medical treatment, and by the better education, not merely of their medical students, but of the mothers and daughters of their country.

Dr. George Kendal has been elected resident medical officer to Monkstown Hospital.

Nov. 28th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Pathological Aspect of Electric Lighting.

AT a meeting of the Academy of Medicine, held on the 21st inst., M. Lancereaux exhibited the lungs of a polisher of carbon terminals for the electric arc light, the said organ being transformed into veritable blocks of carbon, and large vomicæ being also discovered. The deceased was, up to the age of thirty-six years, a vigorous stonemason. He was then transferred to a workshop eight metres long by seven broad, where, with eight other men, he was engaged in polishing on stone mills charcoal for electric lighting purposes. The shop was so badly ventilated that sometimes the men could not distinguish each other through the charcoal and stone dust filling the atmosphere. The man continued to work thus for six years, each day's work extending to ten or twelve hours. For a year before he ceased work altogether he had coughed and expectorated black sputa. He was admitted into hospital in the winter of 1890–91 for bronchitis after influenza, and he was then expectorating black sputa in large quantities, in which particles of carbon could easily be distinguished under the microscope and by chemical tests (resistance to strong acids). In 1892, he was re-admitted in an emaciated condition, and bacilli could be detected in the black sputa secreted by the numerous cavities. M. Lancereaux very truly says that every new industry that springs up is worthy of the physician's notice, in that new dangers to health may thus be created. He claims for the modern class of toilers better ventilated workshops. Strange to say, he does not suggest the employment of respirators as well.

The Action of Perchloride of Mercury on the Blood-corpuscles.

It is generally taught and believed that pushed to a pernicious extent mercuric salts do harm by destroying the red blood-corpuscles. Now, M. Maurel, of Toulouse, informs us[1] that the leucocytes of the rabbit are much more sensitive to this disintegrating action of (perchloride of) mercury than are the red corpuscles. The noxious effects of the mercuric salt on the animal itself and on the white blood-corpuscles bear no constant relation the one to the other. From experiments formerly made by M. Maurel on the action of mercury on human blood, the results being strictly confirmatory of the above conclusions, he asserts that mercury exercises its chief action on the system through the medium of the white blood-corpuscle.

A Feline Monstrosity.

The existence of a race of cats deprived of their caudal appendages has long been a puzzle to naturalists, and the fact that his sea-girt territory is the home of these anomalously fashioned creatures is, I believe, a source of pride to many an inhabitant of the Isle of Man. A female specimen of this species recently brought to Paris, and fecundated by an ordinary male cat, gave birth to a stillborn female kitten, which presented, according to M. Dareste, the following anatomical peculiarities. Like its mother, it had no tail; the spinal cord descended to the extremity of the spinal canal (in dogs bereft of a tail the cord only reaches the lower dorsal region); the bladder was extroverted—a very rare phenomenon in these animals; the greater part of the alimentary canal was absent (thus the œsophagus at its lower extremity opened directly into the abdominal cavity); and there was neither stomach nor intestine, the rectum being the sole vestige of the tube remaining. M. Dareste purposes studying in greater detail the peculiarities of this curious creature.

Sanitary Progress in Paris.

It is a pleasant task to record the diffusion of sound notions of hygiene amongst the inhabitants of this much-frequented capital. The following figures prove this: during the first seven months of 1892, 7172 disinfections (of effects and rooms) took place; during the corresponding period of 1893 there were effected no less than 19,674 disinfections. To meet this increased and very welcome demand on the part of the public the Paris Town Council has voted a supplementary credit of 30,000 fr. up to Jan. 1st next.

Nov. 28th.

MEDICAL TRIAL.

THE DIFFICULTIES OF DIAGNOSING SMALL-POX.

THE case in which the Kensington Vestry prosecuted Mr. James David Hirst Smyth, of Fielding-road, Bedford park, for failing to send to the medical officer of health for the district notices of two cases of infectious disease which he attended at Portobello-road, Notting Hill, in accordance with Section 55 of the Public Health (London) Act, 1891, came again before Mr. Curtis Bennett at the West London Police-court on Friday. It will be remembered that the patients were a child twelve years old and her father. The former was treated for chicken-pox, and about three days later she was allowed to go about again. The father became ill, and his disease was diagnosed to be the same as that from which his daughter had suffered. He died seven days after he had been first attended, and the child was then removed to the hospital ship near Dartford. Dr. Thomas Frank Ricketts, the medical superintendent of the hospital ships at Long Reach, now attended by permission of the Metropolitan Asylums Board. He said that he saw the child on its admission to the ship on Oct. 23rd. At that time the eruption had for the most part disappeared; it was still present on the soles of the feet, but had disappeared from the rest of the body, leaving considerable staining of the

[1] Academy of Medicine, Nov. 21

skin and obvious scars. The child was quite well in her general health. He had no doubt whatever that the eruption was that of small-pox. Having regard to the duration of the illness, which he understood commenced some four weeks previously, the rash was perfectly distinctive. The appearances led him to form the opinion that it had been a moderately severe case: the child bore no evidence of vaccination. She was conveyed from the wharf at Rotherhithe by the ambulance steamer, and the medical officer on the wharf would see her and would not have allowed her to enter the ambulance ship unless, in his opinion, she was suffering from small-pox. The child was discharged from the ship on Nov. 15th. Replying to questions put by Mr. Grain, who defended, Dr. Ricketts said that, while the appearance of rash on the feet might be found in some cases of chicken-pox, the particular appearance of rash the child presented was characteristic of small-pox and not of chicken-pox; it was much more deep-seated than would be found in a case of the latter. While vomiting and delirium were symptoms of small-pox the absence of them in any case would not lead him to say that it was not a case of that disease. He had had an experience of about a year and a half and had seen between two and three thousand cases of small-pox. In addition to the condition of the child's feet, the distribution of the rash, the amount of staining of the skin, and the depth of the scars were characteristic of small-pox. Replying to Mr. Curtis Bennett, Dr. Ricketts said that very often it was extremely difficult to say whether a case was one of chicken-pox or of small-pox, and in numbers of these cases none but the most skilled observer was competent to distinguish the two diseases. At the same time in the particular case under consideration there could have been no doubt in the mind of a man who had had any considerable experience of small-pox that that was such a case. He was not prepared to say that a man of very small experience in small-pox and a man who had very slight knowledge of the disease might not have acted in good faith and come to the conclusion that this was a case of chicken-pox. The defendant was again called into the witness-box and was asked by the magistrate what medicine he gave the child. He said that it was simply a little stimulant consisting of ammonia and gentian, together with some sulphate of magnesia as a laxative. In the case of the man, whose heart was weak, he added tincture of digitalis, but otherwise gave him medicine similar to that he had given the child. He did not give him anything beyond that up till the time of his death, except a gargle of iron and chloride of potassium for his throat, which was sore. Asked whether it was usual to give a gargle of that sort when a person was suffering only from chicken-pox, the defendant said he had to give it in a similar case which he had attended some months previously, but he could not charge his memory further. Mr. Curtis Bennett, in giving his decision, said that the case was very important, indeed as much so as any could be with regard to the notification of infectious diseases. Upon the evidence which had been given there was no difficulty in deciding from what disease the child and the deceased man had suffered; but the question was whether the Act of Parliament was sufficiently well drawn to do what it was probably the intention of the Legislature to do—viz., to impose a penalty upon a man for not having notified a case of this description. In the opening words of the section legal phraseology was used; but then they came to the use of what might be called ordinary verbiage, and the words "on becoming aware of" were employed. Those were not legal words at all; the legal way of expressing what was intended would be "on it becoming evident that" a patient was suffering from an infectious disease, and that would mean "on it becoming evident to the court of investigation." As the Act stood, it seemed to him that before any medical practitioner could be convicted under the section it must be proved that there was more than mere negligence, more than want of knowledge; it would have to be proved that a medical man was absolutely wilfully blind: that he, having the knowledge that a person was suffering from an infectious disease, failed to certify it and wilfully did that for a purpose of his own; and the only purpose he (the magistrate) could conceive of was that a medical practitioner would know that if he notified a case of that description the effect would be to deprive him of a patient because the sick person would be removed. The facts in the present case did not warrant the conclusion that that was what had happened. He reviewed the evidence and declared that it was a lamentable want of judgment on the part of the defendant that he did not make an examination of the child when he was called to the father and found him suffering from a disease of the same character as the child had had. Then, too, when it was found that the eruption continued in its course day by day for seven days, and when the severity of the attack was apparent, the defendant exhibited a lamentable want of knowledge as well as a want of judgment by not calling in further assistance and having a fresh diagnosis of the case made. If the words in the statute had been those he thought they should have been, he should have had no hesitation in convicting the defendant with regard to the man, although he would have given him the benefit of the doubt in regard to the child, because up to the time the medical attendant was called in on the second occasion he might have made a mistake. Unfortunately a perfect epidemic had occurred in the immediate neighbourhood of this house. The deceased had lain ill and had died in a small back room in immediate communication with the shop in which articles were served to the poorer class of people in the neighbourhood; in this way there was a tendency for the disease to spread. The vestry were perfectly right in bringing the case before him, but as the statute stood—and he threw out the suggestion that steps should be taken to amend it—the summonses must be dismissed.

MEDICAL PRACTITIONERS' ASSOCIATION.—The adjourned discussion on Dr. Alderson's paper on the Remuneration of Medical Men will be resumed on Tuesday, Dec. 5th, at 4 p.m., in the Council Chamber of Exeter Hall, Strand, by Brigade-Surgeon-Lieutenant-Colonel G. J. H. Evatt, M.D., Sir Benjamin Ward Richardson, F.R.Ss., M.D., Surgeon-Major Poole, Dr. Allan and others are expected to be present and to take part in the discussion. All medical practitioners, whether members of the Association or not, will, we understand, be welcomed.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the subjects indicated below:—

Surgery.—F. Chown, St Mary's Hospital; E. Gill, St. Bartholomew's Hospital; J. W. F. Graham, St. Bartholomew's Hospital; W. G. J. Graham, Bristol; H. G. C. Hardwick, St. Thomas's Hospital; D. Hunter, London Hospital; F. W. Kerbey, London Hospital; A. L. Knapman, Manchester; T. Longmore, Birmingham; W. D. Macdonald, Guy's Hospital; J. E. S. Old, London Hospital; G. F. Palmer, London Hospital; T. P. Stokes, Sheffield; H. L. Thurnell, St. Thomas's Hospital; H. C. Venis, St. Mary's Hospital; and R. A. Young, Middlesex Hospital.

Medicine, Forensic Medicine and Midwifery.—G. Allcock, St. Thomas's Hospital; R. L. Dickinson, London Hospital; G. Higginson, London Hospital; D. Hunter, London Hospital; J. Jones, Manchester; T. Jones, London Hospital; T. Longmore, Birmingham; G. H. Pearce, St. Thomas's Hospital; F. L. F. E. Pfaff, Strasburg; J. H. Spreat, St. Bartholomew's Hospital; A. W. Seal, University College; and C. J. Wills, Liverpool.

Medicine and Forensic Medicine.—H. Andrew, University College; A. Dolve, University College; and C. A. Marrett, Charing-cross Hospital.

Forensic Medicine and Midwifery.—E. A. Tudman, University College, and W. B. Welch, St. Bartholomew's Hospital.

Midwifery.—A. H. Bird, St. Mary's Hospital, and G. C. B. Hawes, St. George's Hospital.

To Messrs. Chown, Delve, Dickinson, Hawes, Higginson, Hunter, J. Jones, T. Jones, Kerbey, Knapman, Longmore, and Seal were granted the Diploma of the Society entitling them to practise Medicine, Surgery and Midwifery, and enabling the holder to compete for Medical Appointments in the Army, Navy, and India Service, also for Poor-law Appointments.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College:—

James Clarke, M.D., M.Ch., Royal University, Ireland, Surgeon-Major Indian Medical Service.
Emily Winifred Dickson, L.R.C.P.I., L.R.C.S.I., M.B., B.Ch., Royal University, Ireland.
George Alexander Moorhead, L.R.C.P.I., L.R.C.S.I.
Robert John Roulston, M.D., M.Ch., Royal University, Ireland.
Robert Henry Woods, M.B., B.Ch., University Dublin.

The following candidates passed the primary part of the examination:—

Arthur Wellington Saul McComiskey, L.R.C.P.I., L.R.C.S.I.
William John Frewhella, L.R.C.P.I., L.R.C.S.I.

Licence in Dental Surgery.—The following candidates have passed the primary part of the examination:—Frederick Edward Davies, John Stanton, and Francis Owen Stoker.

Henry Edmund Rose has passed the final part of the examination and has been granted the Diploma in Dental Surgery of the College.

ROYAL BRITISH NURSES' ASSOCIATION.—The annual conversazione of the Royal British Nurses' Association will be held on Thursday, Dec. 7th, at 8.30 P.M., in the Galleries of the Royal Institute of Painters in Water Colours, Prince's Hall, Piccadilly. Madame Larkcom, Miss Louise Phillips, Madame Isabel Fassett, Mr. William Nicholl, Mr. Brereton, and Miss Mary Carmichael have promised their assistance on the occasion. The Orchestral Society of St. Bartholomew's Hospital, which is composed of the students and nurses attached to that hospital, will perform during the evening, and selections will be played by the Ladies' Mandolin Band. Tickets may be obtained from the Secretary, 8, Oxford-circus-avenue, Oxford-street, W.

PRESENTATION TO DR. DOUGAN OF GLASGOW.—Dr. William Dougan, the recently appointed successor to the late Sir George Macleod as medical officer to the Glasgow Post-office, received on the 21st ult. a very cordial acknowledgment by his friends of the services he had rendered to them and his patients in his capacity of medical attendant. The occasion assumed the form of a social gathering, at which valuable gifts were presented to him. The Rev. J. Arthur, of Springburn parish church, took the chair, and he was supported by a large number of influential residents of the district Dr. Dougan had recently left. Many handsome things were spoken of their guest, not only by the chairman, but by others who were present. Dr. Dougan expressed his thanks in a lengthy and withal a humorous speech, in which he referred to the many happy hours he had spent in Springburn and the change wrought in his prospects and pursuits by the new appointment he had received. The presents alluded to consisted of a valuable tea service and a drawing-room timepiece bearing suitable inscriptions.

CAMBRIDGE UNIVERSITY.—The degree of Bachelor of Medicine and Surgery has been conferred upon Arthur Edward Hart.

BEQUESTS.—Miss Deborah Cannon has bequeathed £500 to the Stewart Institution for Lunatics, Palmerston; £300 each to the Royal Hospital for Incurables, Donnybrook, the Adelaide Hospital, Dublin, and the Monkstown Hospital.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next examination for the certificate in Psychological Medicine will be held in England on Dec. 7th, at Bethlem Hospital, at 11 A.M. The examination in Scotland will take place on Dec. 16th. Candidates should at once give notice to the general secretary, Dr. Fletcher Beach, 11, Chandos-street, Cavendish-square, W., if they wish to be examined in England, and to the secretary for Scotland, Dr. Urquhart, Murray's Asylum, Perth, if they desire to be examined in Scotland.

FOOTBALL CASUALTIES.—On the 18th ult., during a match between the Western Mail Rovers and Guildford Star A, at Cardiff, a player aged fifteen years sustained a fracture of the arm and was taken to the infirmary.—A well-known Chesterfield player aged twenty-four years died on the 23rd ult. from injuries received to the abdomen while playing full-back with Chesterfield against the Derby Junction, on the Chesterfield ground, in the English Cup Competition.—On Saturday last a youth seventeen years of age, in a match at Knostrop, had his femur fractured, and was admitted to the Leeds General Infirmary.—On the 28th ult. a student at the Downton Agricultural College, Salisbury, died from injuries sustained in a Rugby match on Saturday last. One of his arms was badly fractured, lockjaw supervening with a fatal result.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, NOV. 23RD.

The Treatment of Lunatics.

MR. ASQUITH, replying to Mr. M'Cartan, said his attention had been drawn to the last report of the Inspectors of Lunatics in Ireland where reference had been made to the treatment of lunatics in the Belfast Workhouse. In that institution eighty-one persons suffering from epileptic insanity or idiocy were in durance on Dec. 31st last, and of these nineteen were constantly confined to bed, whereas they should have been encouraged or compelled to get up and move about. The want of bath and lavatory accommodation was also adverted to in the report. In Belfast, however, large sums of money had been expended by the guardians to provide proper accommodation for that afflicted class of persons.

FRIDAY, NOV. 24TH.

Barbed Wire Fences.

Replying to Mr. A. C. Morton, Sir Walter Foster referred to an Act passed during the present session which gave power to local authorities to take proceedings for the removal of barbed wire fences likely to cause injury to persons using a highway, but the Local Government Board had no power to give instructions to local authorities in the matter, or to enforce action under the above-mentioned statute.

The Bovine Tuberculosis Commission.

Mr. H. Fowler, in answer to a question put by Mr. Field on the above subject, said he had been informed by the Commissioners that the experimental investigations had been completed, and that the reports of the sub-Commissioners would be ready in a few days. The final report of the Commission would probably be issued during December.

The Hours of Labour of Railway Servants.

With regard to this matter, Mr. Dalziel asked the President of the Board of Trade in how many cases action had been taken under the powers conferred upon the Board by the Railway Servants (Hours of Labour) Act, and with what result.—Mr. Mundella said the question was somewhat premature, since the circular issued by the Board had only recently been replied to. He hoped, however, that the companies would deal satisfactorily with cases brought before them, so that it might not be necessary on the part of the Board to resort to the powers conferred by the Act.

Sanitary Work for the Unemployed.

A conversation, raised by Mr. Keir Hardie, took place with regard to the desirability of finding occupation for the unemployed on works of a sanitary and productive kind.—Mr. H. Fowler said a circular letter had been addressed to sanitary authorities on the subject of the present lack of employment in various parts of the country, a calamity which some hon. members supposed was capable of being remedied by the Board over which he presided. He wished to say, however, that the Local Government Board had no power of themselves to undertake works of the kind referred to, nor had they power to require local authorities to do so, though they were most desirous of assisting such authorities as far as possible.

Deaths from Carbolic Acid.

Mr. Macdona, quoting certain statistics with respect to the number of deaths due to the taking of carbolic acid, either by accident or design, asked whether the Government would place the drug under the Pharmacy Act, whether coroners might not be instructed to certify the name of the poison which caused the death inquired into, and whether the Secretary of the Local Government Board would order a return to be made of the number of fatalities caused by carbolic acid during the last five years.—Sir Walter Foster said the information in his possession on the subject did not extend to the whole of the time specified, but a return might be moved for. The Board had no jurisdiction with regard to the articles which were to be deemed poisons for the purpose of the Pharmacy Act, nor had it any power to issue instructions to coroners in the way suggested.

MONDAY, NOV. 27TH.

The Vaccination Acts.

Mr. Picton asked the Home Secretary if it was legal to summon a man residing in one union (the King's Norton) for non-compliance with the Vaccination Acts, and to fine him for the same offence in another union (the Birmingham).—Mr. Asquith said it would appear that the defendant in the case referred to resided at Harborne, in the King's Norton Union, but part of that union was in the city of Birmingham, so that under Section 33 of the Vaccination Act, 1867, the Birmingham magistrate had jurisdiction in the case.

TUESDAY, NOV. 28TH.

Infant Mortality in Belfast.

Mr. Asquith, replying to a question put by Mr. Young on the above subject, said the remarks of the coroner at an inquest on the body of a child supposed to have been murdered in Belfast had reference to the ordinary death-rate of children in that town, which appeared to be considerably higher than in some other places in Ireland. That excessive mortality was attributed by the medical officer of health to bad sanitation, the prevalence of zymotic diseases and other causes usually to be found amongst populations of the artisan class.

The Proposed Fever Hospital at Norwood.

In reply to a question put by Mr. Young, as to the suitability of the proposed site for the fever hospital at Norwood, Mr. H. Fowler said the inquiry into the matter was concluded on Wednesday last, but the report of the inspectors had not been received. When forthcoming, however, it, along with the evidence, would be very carefully considered by him before any decision was arrived at.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOWSER, H. C., M.R.C.S., L.M. Edin., has been appointed Medical Officer to the Local Hospital, Port Douglas, Queensland.

BURT, C. C. B., M.R.C.S., has been appointed Medical Officer for the Snitterfield Sanitary District of the Stratford-on-Avon Union.

CHRISTIE, W. W., M.D., Ch.M. Glasg., has been appointed a Public Vaccinator for the districts of New Plymouth and Waitara, New Zealand.

COLE, T. W., M.B., B.S. Dubl., has been appointed Medical Officer to the Bolsover Local Board.

COUNSELLOR, CHAS. EYRE, M.D., L.S.A., has been appointed Examining Surgeon for the Bureau of Pensions, U.S.A.

CROPLEY, H., F.R.C.S., has been appointed Medical Officer to the Northampton Workhouse, vice Percival, resigned.

FULTON, T. K., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for Wallaroo, South Australia.

HARBISON, W. H., L.R.C.P., L.M., L.R.C.S Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator in South Australia.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed an additional Medical Officer, pro. tem., to the Bristol Sanitary Authority.

LENDRUM, J. B., M.B., M.S. Aberd., has been appointed Assistant House Surgeon to the Huddersfield Infirmary.

MORGAN, T. W. S., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Bedminster Union.

NAYLOR, W. R., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Huddersfield Infirmary, vice Hall, resigned.

NUNN, P. W. G., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Bournemouth.

PORTER, THOMAS, M.B. Vict., Ch.B., has been reappointed, for one year, Assistant Medical Officer to the Manchester Royal Infirmary.

SAWKINS, F. J. T., M.B. Sydney, has been appointed Resident Superintendent to the Prince Alfred Hospital, Sydney, New South Wales.

SMITHIES, JOSEPH J., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer for the Gisburn Sanitary District of the Clitheroe Union.

STANLEY, LEWIS, M.A., M.B., B.C. Cantab., has been appointed Senior House Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

TURNER, G., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for Ware.

WESTWOOD, A., M.B., M.S. Edin., has been appointed Medical Officer for the Stretford Sanitary District of the Barton-upon-Irwell Union.

WHITE, J. A. T., M.R.C.S., L.R.C.P., has been appointed House Physician to the Metropolitan Hospital, Kingsland-road.

WILSON, ALEX., L.R.C.P. Lond., F.R.C.S., has been reappointed, for one year, Senior Anæsthetist to the Manchester Royal Infirmary.

YOUNG, R. W., M.R.C.S. Eng., has been appointed a Government Medical Officer and Vaccinator for the district of Dowling, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CHURCH OF SCOTLAND'S MISSION AT ICHANG, CHINA.—Medical Missionary. Applications to Rev. John McMurtrie, D.D., 22, Queen-street, Edinburgh.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician, for six months. Board and residence and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury-circus, E.C.

CITY OF LONDON LYING-IN HOSPITAL, City-road, E.C.—District Surgeons for Upper Holloway and N. Division of Bethnal-Green, including Hackney.

CLAPHAM GENERAL AND PROVIDENT DISPENSARY.—Qualified Resident Dispenser. Inclusive salary £100 a year, with unfurnished rooms, firing, and gas. Applications to Hon. Sec., 42, Manor-street, Clapham, S.W.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Demonstrator. Honorarium £50 per annum.

ECCLES AND PATRICROFT HOSPITAL.—House Surgeon. Salary £60 a year, board, and lodging.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer. Salary £50.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—House Surgeon, for six months. Salary at the rate of £60 per annum.

NORTH LONDON HOSPITAL FOR CONSUMPTION, 41, Fitzroy-square, W.—Qualified Dispenser for Out-patients' Department.

NOTTINGHAM GENERAL DISPENSARY.—Junior Assistant Resident Surgeon, for six months. Salary at the rate of £120 per annum, with rooms and light.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, W.—Demonstrator of Chemistry. Salary £75 per annum.

Births, Marriages and Deaths.

BIRTHS.

ARMSTRONG.—On Nov. 22nd, at Holcombe House, Southgate, N., the wife of Arthur J. M. Armstrong, M.R.C.S.E., L.R.C.P. Edin., of a daughter.

BRODIE.—On Nov. 25th, at Chesterfield-street, Mayfair, W., the wife of Dr. Brodie, of a son.

BRICE.—On Nov. 2nd, at the Royal Naval Hospital, Simon's Town, Cape of Good Hope, the wife of Surgeon Frederick Augustus Brice, R.N., of a daughter.

JONES.—On Nov. 23rd, at River House, Enfield, the wife of Dr. Philip W. Jones, of a daughter.

LARDER.—On Nov. 23rd, at Whitechapel Infirmary, the wife of Herbert Larder, Medical Superintendent, of a son.

MANWARING.—On Nov. 25th, at Lansdowne-place, Brighton, the wife of E. E. Manwaring, M.R.C.S., L.R.C.P., of a daughter.

PHILLIPS.—On Nov. 24th, at the Terrace, Gravesend, the wife of Dr. H. Astley Phillips, of a daughter.

POWELL.—On Nov. 17th, at Woodcote Lodge, Windlesham, Surrey, the wife of Surgeon-Captain Simpson Powell, of a daughter.

RICHARDSON.—On Nov. 26th, at Audrey House, Gosport, Hants, the wife of Martin Richardson, M.B., of a son.

SAINSBURY.—On Nov. 22nd, at Welbeck-street, W., the wife of Harrington Sainsbury, M.D., of a son.

TIDEY.—On Nov. 22nd, at Waldegrave-gardens, Twickenham, the wife of Stuart Tidey, M.D. Lond., M.R.C.P., of a daughter.

MARRIAGES.

BARRETT—SMITH.—On Nov. 25th, at St. Saviour's Church, Paddington, John Barrett, M.D., of Hambalt-road, Clapham, to Alice Mary, third daughter of the late Ambrose Smith, of Watford, Herts.

DUNBAR-BRUNTON—BENNETT.—At All Saints', Leamington, on Nov. 22nd, by the Rev. Dr. Nicholson, Rector of St. Alban's, assisted by the Rev. Wilfred Jones-Bateman, Rector of St. George's, Grenada, W. Indies, James Dunbar-Brunton, M.B., Sorrento, Italy, eldest son of John S. Brunton, Esq., J.P., Ladhope, Roxburghshire, N.B., to Charlotte Riley Bennett, daughter of the late James I. Bennett, Esq., of Pittsburg, Penna., U.S.A.

MOTTERAM—BLAKEWAY.—On Nov. 28th, at St. George's Church, Edgbaston, Henry Prince Motteram, M.R.C.S. Eng., L.R.C.P. Lond., elder son of Henry S. Motteram, of Sheffield, to Elizabeth Stratton, younger daughter of the late Joseph Blakeway, of Birmingham and Chaddesley Corbett, Worcestershire.

DEATHS.

CALCOTT.—On Nov. 21st, at Caynham Lodge, Worthing, Lewis Berkeley Calcott, M.R.C.S., &c., late of Oundle, Northamptonshire, aged 38.

GIBSON.—On Nov. 25th, at Wetherby, Charles Philip Gibson, surgeon, aged 39.

GUPPY.—On Nov. 18th, at Cambridge-place, Falmouth, after a short illness, Thomas Stokes Guppy, M.D., aged 74 years.

JONES.—On Nov. 26th, at his residence, Priory-crescent, Lewes, John Jones, M.R.C.S., L.S.A., aged 63.

WILLIAMSON.—On Nov. 20th, at Ludgerstall, Wilts (the residence of his eldest son), James Williamson, M.D., of 44, Mildmay-park, London, aged 63.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

Medical Diary for the ensuing Week.

Monday, December 4.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 1 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.
ROYAL EYE HOSPITAL, SOUTHWARK.—Hour of attendance, 2 P.M., and other days at the same hour. Operations daily.
ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.)—5.30 P.M. Dr. Morgan Dockrell: Lupus Erythematosus and Rosacea.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. J. W. Pickering: The Physiology of the Heart in relation to Anæsthetics. Casual communications will be given by Messrs W. Hern, Henri Weiss, A. W. Barrett, and C. Robbins.

Tuesday, December 5.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Skin Department, 1.45; Saturday, 9.15.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—Dr. Voelcker: Aneurysm of Aorta rupturing into the Œsophagus.—Mr Bidwell: Rodent Ulcer occurring in the site of a Degenerate Nævus.—Dr. Scholefield: Softening Intra-cardiac Thrombi.—Mr. Lockwood: Hernia of the Ovary.—Dr. Pye-Smith: Perforating Ulcer of the Duodenum.—Dr. Soltau Fenwick: Diphtheria of the Stomach.—Mr. Wallis: Sacculus of Bladder due to Stricture following Amputation of the Penis.—Mr. Paul: Incisor Tooth from a Dermoid Cyst of the Face. Card Specimen:—Mr. Warrington Haward: Stomach and Jejunum five days after Gastro-Jejunostomy.

Wednesday, December 6.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Thursdays and Fridays at the same hour.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Heape, Drs. William, Duncan, and others.—Dr. Horrocks: Intravenous Injection of Saline Solution in cases of Severe Hæmorrhage.—Dr. Gow: A note on Vaginal Secretion.

Thursday, December 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.
HARVEIAN SOCIETY.—8.30 P.M. Prof. Corfield: Disease and Defective House Sanitation.

Friday, December 8.

UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.
BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION (Rooms of the Medical Society of London).—2.30 P.M. Clinical cases will be shown by Dr. W. McNeill Whistler, Dr. Ed. Woakes, Dr. A. Sandford, Mr. Mayo Collier, Mr. Lennox Browne, Dr. Dundas Grant, Mr. Geo. Stoker and Mr. Marsh. The President (Dr. J. Macintyre of Glasgow) will deliver his inaugural address. A special discussion on the Pathological and Clinical Features of Atrophic Rhinitis will be introduced by Mr. Wyatt Wingrave.
CLINICAL SOCIETY OF LONDON.—8.30 P.M.:—Dr. Newton Pitt: Cases of Osteo arthritis with Fibroid Nodules.—Mr. W. G. Spencer: Empyema in a Man aged thirty-six, with Complete and Permanent Collapse of the Lung.—Dr. Henry Handford: (1) Recurrent Venous Thrombosis; (2) Endemic Hæmaturia.—Dr. Soltau Fenwick: Acute Phthisis following Destruction of the Mucous Membrane of the Stomach by Corrosive Fluids.

Saturday, December 9.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 30th, 1893.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 24	30·11	W.	36	35	50	48	32	..	Foggy
,, 25	29·91	W.	46	46	71	51	36	..	Overcast
,, 26	29·73	S.W.	47	47	50	48	41	·36	Raining
,, 27	30·39	N.W.	33	..	51	51	32	·10	Foggy
,, 28	30·28	S.W.	50	50	58	55	33	..	Overcast
,, 29	30·30	W.	50	50	55	52	50	..	Overcast
,, 30	29·92	W.	48	47	55	50	47	..	Overcast

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to the Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

EAR DRUMS.

IN reply to a correspondent, who asks us if a certain statement included in the prospectus or circular of an advertising "aurist" is really extracted from the pages of THE LANCET, as alleged, we have to state unhesitatingly that no such "happy discovery" has ever been extolled, or even mentioned with approval, in our columns. Our opinion on the subject of the utility of ear drums may be gathered from a short article published in THE LANCET of Sept. 13th, 1890, p. 572, to which our correspondent is referred.

Mr. Fred. Roberts.—There is no such class in this country as our correspondent is in want of.

Mr. Wm. J. Asginall should consult the Medical Directory.

"THE TREATMENT OF FUNCTIONAL APHONIA."

To the Editors of THE LANCET.

SIRS,—In reply to "Perplexed" I may say that my partner, Mr. Fisher, was equally nonplussed in a similar case, only of longer duration, about a year ago. Mr. Bendelack Hewetson was called in. He could find no organic mischief in the larynx, and recommended trying whether the voice would return under an anæsthetic. Ether was given, but the patient failed to "give tongue," and was as a last resource sent to Dr. Bramwell to be hypnotised, and in a few days returned home with her vocal powers as good as ever, in which condition they have since remained. I am, Sirs, yours truly,

Skipton, Nov. 20th, 1893. W. BIRTWHISTLE.

PERNICIOUS AND IMMORAL QUACKERY.

L.R.C.P. directs our attention to an advertisement purporting to issue from "the Medical Hall," Sheffield, and from men of over fifty years' special experience. It bristles with all the horrors and filthiness of suggestion of sexual quackery, and its appearance is discreditable to the police of Sheffield. It is poison to all honest men and women, and should be made illegal at once if it is not so; but the evil is rather in the indolence of the police or the Public Prosecutor than in the law. The Medical Defence Union is making a praiseworthy effort to have such literature brought more clearly into the category of the indecent and the obscene. We do not believe in special badges for medical men or in specially coloured hats for their coachmen.

Lux.—There is no law to prevent a retired medical officer from practising where he pleases. Our correspondent has been under some misapprehension on the subject. To do such officers justice, they are generally men of good taste and uphold the dignity of the profession. A non-military member of the profession should not speak of himself as "the humbler and less dignified" brother of the medical officer.

Dr. A. Murison.—We should certainly like our correspondent to be more explicit in his reflections. Meantime we agree with him in disapproving of advertisements of medical men in newspapers—in Cairo as in England.

"LOCOMOTOR ATAXY TREATED BY PHOSPHATIC INJECTIONS."

To the Editors of THE LANCET.

SIRS,—Were the case described by Dr. Forbes Winslow in THE LANCET of Nov. 18th really one of locomotor ataxy the results of his treatment would certainly be remarkable. But Dr. Winslow will, I am sure, pardon me for saying that there is much reason to doubt the accuracy of his diagnosis. He says that the case was a characteristic one. He shows no evidence at all of this. He says, "There was complete want of coördination in his movements, he was quite unable to walk without the assistance of two sticks, and when seated in a chair he could not raise himself without assistance." This assemblage of symptoms does not prove the presence of locomotor ataxy. He implies, but does not say, that Sir Andrew Clark pronounced the case to be locomotor ataxy. But Sir Andrew Clark never claimed infallibility in diagnosing locomotor ataxy. Moreover, the age of the patient at the time of the onset, and the alleged causation of the disease, point away from, although they do not disprove, the existence of locomotor ataxy. Finally, as an *à priori* argument against the utility of the new treatment, I would say that if the posterior columns of the cord be destroyed, as they are in locomotor ataxy, phosphate of soda is not going to replace them. I am, Sirs, yours faithfully,

Milson-road, W., Nov. 28th, 1893. J. MCNAMARA.

A "LIBERAL" PROFESSION.

To the Editors of THE LANCET.

SIRS,—I have recently met with a book on the Management of the Eye, Ear, and Throat, each subject written by eminent men connected with St. Bartholomew's, St. Mary's, and St. Thomas's Hospitals. This little publication seems to illustrate one of the advantages of belonging to our "liberal" profession. Although the first part of the book is written by a specialist, a president of the Ophthalmological Society, yet inside the cover, and therefore well arranged to catch the eye of the reader, is a notice recommending, as the great place for getting suited with spectacles, an optician's in the Strand, who, it states, has also published a book on the treatment of the eyes, and who, in an annexed review of this valuable work, is spoken of as giving the "advice of an oculist." One of the secondary results of this treatise we can therefore easily reckon on: it will teach the public that there is no advantage or necessity of consultation with an ophthalmic surgeon, for how many will distinguish between "optician" and "oculist" when a well-known "daily" leads the way in making the mistake? Surely a right result from a popular book.

I am, Sirs, yours truly,

Nov. 27th, 1893. GEORGE ABBOTT.

DIPHTHERIA AND THE SULPHITES.

To the Editors of THE LANCET.

SIRS,—As the treatment of diphtheria by sulphites is under discussion, I may appropriately refer to a considerable experience of the sulphur treatment during a severe epidemic in 1890 when I was in charge of a fever hospital. I used it locally by frequently insufflating the throat with powdered sulphur, and at the same time internally in the form of the confection, giving a teaspoonful twice a day. I also treated a large number of patients with sulphurous acid fumes, producing the fumes by means of a simple apparatus I devised, which was made for me by Messrs. Arnold and Sons, West Smithfield, E.C., from whom it can be procured. These remedies as potent germicides are rational and I found them serviceable, although I cannot call them, or any other remedy that I know, an "unfailing specific."

I am, Sirs, yours faithfully,

Eastbourne, Nov. 20th, 1893. JAMES ADAMS, M.D., F.R.C.S. Eng.

PRACTICE BY HANDBILLS AT SOUTHAMPTON.

THE following has been sent to us:—

"Surgery, 7, Northam-road (in conjunction with 30, Chapel-road). Managed by a fully qualified physician, surgeon, and accoucheur. Hours of attendance; Morning, 11 to 12; evening, 7 to 9; Sunday, evening, 8 to 9 only. Fees: Advice and medicine, 1s.; advice and medicine, children, 6d.; visit and medicine, 1s. 6d.; midwifery, from 10s. 6d. Urgent cases attended at any time."

Etiquette.—The statement is somewhat meagre. It might cover an obstetric attendance, which we should think an excessive use of friendship. It is well to keep to the regular attendant in all illnesses, but we are not prepared to say that a medical brother-in-law is committing a breach of etiquette if he is desired by his friends to prescribe and does so.

Mr. Chas. Leakey.—We could not comment on such scanty materials as those sent us by our correspondent. If he sends fuller ones they shall receive attention.

Mr. George Newman should consult the Medical Register.

SCORPION STING.

To the Editors of THE LANCET.

SIRS,—Noticing in THE LANCET of Oct. 1st, 1892, the article "Remedies in Scorpion Sting," by R. P. Banerjie, B.A., G.B., M.S.L., I thought my experience with cases of scorpion sting might be of service to some of your readers. For about a year and a half I have treated these with hypodermic injections of cocaine at the seat of the sting, and with invariable success, the almost instantaneous relief from the agonising pain being well indicated by the patients' expressions of wonder, joy, and gratitude. Usually one injection of a quarter of a grain sufficed, the patient retiring to his bed and sleeping soundly, for these stings usually happen after dark. Occasionally, however, a second injection may be necessary. In the cases treated no bad after results of either sting or remedy have been noticed. Knowing the well-proved anæsthetic properties of cocaine it seems strange that it was not earlier thought of in this connection. The ease of application, rapidity of action, and in moderate doses the absence of ill-effects, render it particularly serviceable in this distressing accident.

I am, Sirs, yours truly,

W. M'CLURE, B.A., M.D.,
Medical Missionary to Honan, China.

Prov. Honan, China, Sept. 25th, 1893.

Casualty.—The question is a legal and not a medical one. The man by signing the discharge of the firm from further liability seems to undertake the payment of all charges. He should, at least, be asked to pay, and, failing satisfaction in this way, our correspondent must consult his lawyer.

Mr. H. Littlewood is thanked for his communication.

WANTED, A DIAGNOSIS.

To the Editors of THE LANCET.

SIRS,—A fisherman aged thirty-five years has consulted me concerning his heel. His only complaint is excessive pain on placing his heel upon the ground and on applying pressure on it. There is no pain or tenderness in any other part of the foot. This condition has existed some two months and is gradually getting worse so as to interfere with his work. The only physical sign is some puffiness over the convexity of the heel and under the internal malleolus. There is no heat or redness of the skin. Acute pain is felt when the finger is pushed against the part of the heel in contact with the ground when standing. There are no constitutional symptoms, no apparent displacement of bones or tendons about the foot, and no signs of nerve pressure, &c. What is the trouble and what would be the best way to treat it? I have tried rest, liniments of camphor, belladonna, aconite, &c., and elastic pressure about the ankle. There is no pain on raising the foot from the ground or on any movement of the foot. I have thought of a possible new growth. There is no specific history.—I am, Sirs, yours faithfully,

Nov. 29th, 1893. J. GRIMSHAW.

"CLAMP FORCEPS FOR ABDOMINAL OPERATIONS."

To the Editors of THE LANCET.

SIRS,—Mr. T. Smith's communication in the last issue of THE LANCET relative to a "clamp forceps for abdominal operations" reminds me of a similar instrument which was made for me some years ago by Mr. Young, surgical instrument maker, Edinburgh, for operations on the lips, cheek, and tongue. The principle of the instrument is exactly the same as Mr. Smith's, except that the blades are semi-circular, diameter about two inches, similar in fact to Desmarre's eyelid forceps, the blades being alike and roughened on their applied surfaces. I have found it most useful, more especially in operations on the anterior half and sides of the tongue. It holds the organ firmly and prevents all bleeding during the operation. It is also very convenient for nævi and small epitheliomata of the lips.

I am, Sirs, yours truly,

K. MCLEOD, M.D., F.R.C.S.Eng.

Clanricarde-gardens, W., Nov. 20th, 1893.

THE TITLE OF "DOCTOR."

To the Editors of THE LANCET.

SIRS,—There is one point in the question of degrees for London medical students that has, I think, escaped observation, at all events that has not received adequate attention. I am firmly of opinion that if it were compulsory for medical men to affix to their degrees or qualifications on all occasions, the name of the university or licensing body from whence they were obtained, there would be far less complaining from the students and Licentiates hailing from London. There are few, if any, men holding the licence of the London Conjoint Board who would exchange their qualification for any degree given by any university, at all events other than London, Oxford or Cambridge, and what I think causes them rightful annoyance is this, for instance: on their brass plate they have to inscribe themselves "Mr."——, Surgeon, and their medical neighbour—most probably a graduate of some university other than those I have mentioned—styles himself "Dr."——, Surgeon. Now the average layman thinks they both hold London qualifications to practise, but that the "Dr." has had superior advantages in his medical education and has been more thoroughly examined in the knowledge of his profession, which is certainly not the case, and obviously unfair, Sirs, to

Yours obediently,

Nov. 28th, 1893. L.R.C.P. LOND., M.R.C.S. ENG., &c.

SAFETY RIDING-HABITS."

To the Editors of THE LANCET.

SIRS,—Of the many dangers which ladies when hunting incur perhaps the most serious is the one of their riding-habit getting entangled when falling and the lady being dragged. Many "safety" habits have been invented. I was shown one by Mr. Shingleton of New Bond-street, which is quite an elegant-looking dress and at the same time certainly seems entitled to be called a "safety" riding habit. This is, when the lacy is seated, has all the appearance of a neat ordinary riding-habit, but it is so arranged that the skirt is only in front and is fixed to the seams of the riding trousers so that when the lady is seated there are no folds of skirt to get entangled on the crutch &c., and the rider has no more to catch than a man mounted in ordinary riding breeches. This not only seems to me to make the habit a safety one, but, I should think, would give a much firmer and more pleasant seat, as there are no folds of dress to interfere with the grip when riding. When the lady dismounts, the skirt, being ample in front, allows of folding round behind, and is fixed to a button, removing all unsightliness.

I am, Sirs, yours faithfully,

Folkestone, Nov. 20th, 1893. E. D. TOMLINSON, M.D.

"MAGNIFYING AURAL SPECULUM."

To the Editors of THE LANCET.

SIRS,—I was not aware until my attention was drawn to the fact by Dr. Ward Cousins that he had already devised and published an account of a speculum and head rest, the former having a lens and mirror attached. Had I been aware of this communication of Dr. Ward Cousins I should of course have referred to it in the short description of my speculum, which, however, differs essentially from his in construction. I may add that Messrs. Arnold have now my specula of three different sizes, with the accompanying lenses in portable case.

I am, Sirs, yours faithfully,

Nov. 23rd, 1893. H. MACNAUGHTON JONES.

Dr. X. Y. Z.—The letters suggested on the brass plate would be in bad taste. Our correspondent will agree with us when he thinks of the way in which his example might be followed. Another practitioner might profess a special attention to diseases of the liver between 4 and 6, another to diseases of the pancreas between 6 and 8, &c.

COMMUNICATIONS not noticed in our present issue shall receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Irish News, Liverpool Daily Courier, Hull News, Tunbridge Wells Advertiser, Blackburn Standard, Staffordshire Evening Post, Grimsby Observer, Preston Herald, Lichfield Mercury, Glasgow Herald, South Wales Daily News, Bristol Times and Mirror, Leicester Post, City Press, Local Government Chronicle, Sanitary Record, Leeds Mercury, Bristol Mercury, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Reading Mercury, West Middlesex Standard, Hertfordshire Mercury, Yorkshire Post, Times of India, Pioneer Mail, Architect, Sunday Times, Builder, Local Government Journal, West Middlesex Advertiser, Surrey Advertiser, Lurgan Times, Cambrian News, Carnarvon and Denbigh Herald, Brecknock Beacon, Australian Medical Gazette, Sheffield Daily Telegraph, Hastings News, Oswestry Advertiser, Leighton Buzzard Observer, Stirling Sentinel, Clifton Chronicle, Kent Coast Times, Devizes Gazette, Rugby Advertiser, Bath Chronicle, Auckland Chronicle, Derry Standard, Le Temps (Paris), Oldham Daily Standard, North Eastern Daily Gazette,* &c. &c.

Communications, Letters &c. have been received from—

A.—Sir Henry Acland, Bart., Oxford; Dr. W. H. Aitchison, Wallsend-on-Lyme; Dr. James Adams, Eastbourne; Mr. George Abbott, Tunbridge Wells; Mr. W. J. Aspinal, Cambridge; Messrs. Arnold and Son, Newcastle-on-Tyne; Messrs. Arnold and Sons, London; Messrs. Askew, Roberts and Co., London.

B.—Prof. A. M. Buchanan, Glasgow; Dr. W. M. Ball, Hounslow; Mr. W. Bramwell, Dublin; Mr. W. W. Baxter, Manningtree; Mr. R. E. Blount, Neuilly-sur-Seine; Mr. T. B. Browne, London; Messrs. Brown, Gould and Co., London; Messrs. W. Blackwood and Sons, Edinburgh; Messrs. Blondeau et Cie, London; Messrs. Burroughs and Wellcome, London; Berlin, Our Correspondent at; B. B.

C.—Dr. Cullingworth, London; Dr. Fred. C. Coley, Newcastle-on-Tyne; Dr. P. I. Cook, West Brighton; Mr. D. Campbell, Glasgow; Mr. W. Hawkins Cuthbert, Aberdovey; Misses Catton and Puckey, Glasgow; Cambridge University, Registrar of; Cortland Wagon Co., London, Manager of; Clark's Carriage Works, Wolverhampton, Manager of; C. M., London.

D.—Dr. Thos. Dutton, London; Dr. J. F. Dutton, Yale, U.S.A.; Surg.-Lt.-Col. J. Duke, Bengal; Dr. Lovell Drage, Hatfield; Mr. F. K. Dickson, Buxton; Mrs. Dunnet, Nairn.

E.—Mr. E. L. Freer, Birmingham; Messrs. Fletcher, Russell and Co., London; Messrs. Fannin and Co., Dublin; Messrs. E. J. P. Francis and Co., London; F. S. London.

G.—Mr. A. Gabriel, Bedworth; Mr. S. A. E. Griffiths, Northants; Messrs. Greenall & Co., London; Guthrie Society, Westminster Hospital, Secretary of.

H.—Dr. W. S. Hedley, Brighton; Dr. Donald W. C. Hood, London; Dr. T. W. Hime, Bradford; Dr. John Housley, Retford; Mr. J. R. Howarth, London; Mr. A. Haviland, Douglas; Mr. G. F. Hitcken, London; Mr. W. F. Horton, London; Mr. H. J. Hudd, London; Mr. J. Heywood, Manchester; Miss Halcomb, Thetford.

J.—*Journal of Gas Lighting*, Editor of; J. K.

K.—Dr. Klein, London; Dr. W. Krajewski, Warsaw; Dr. Lawford Knaggs, London.

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